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ABSTRACT

On June 20, 1972, the subcommittee resumed its hearings on the role of land-grant colleges in rural America. Witnesses testified on: (1) programs of the U.S. Department of Agriculture and the land-grant colleges; (2) the agricultural experiment stations in Florida; (3) the land-grant college and agricultural technology; (4) the future role of black land-grant colleges; (5) the current beneficiaries of the research and other efforts of land-grant colleges; (6) mechanisms needed to make the land-grant college system accountable to the public interest; and (7) the status of land-grant college research and extension. Among the witnesses were: the U.S. Secretary of Agriculture, a U.S. Senator from Florida, the vice president for agricultural affairs and a professor of wildlife ecology at the University of Florida, and representatives from the National Association of State Universities and Land-Grant Colleges. The hearing also included statements from the presidents of the National Farmers Union, the American Farm Bureau Federation, and the National Farmers Organization. (NQ)

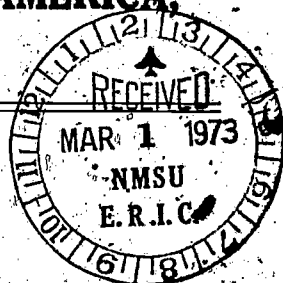
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FARMWORKERS IN RURAL AMERICA

1971-1972

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HEARINGS

BEFORE THE

SUBCOMMITTEE ON MIGRATORY LABOR

OF THE

COMMITTEE ON

LABOR AND PUBLIC WELFARE

UNITED STATES SENATE

NINETY-SECOND CONGRESS

FIRST AND SECOND SESSIONS

ON

THE ROLE OF LAND-GRANT COLLEGES

JUNE 20, 1972

PART 4B

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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(II)

FORMAT OF HEARINGS ON FARMWORKERS IN RURAL AMERICA

The Subcommittee on Migratory Labor conducted public hearings in Washington, D.C., and in San Francisco and Fresno, Calif., during the 92d. Congress on "Farmworkers in Rural America." These hearings are contained in the following parts:

<i>Subject matter</i>	<i>Hearing dates</i>
Part 1: Farmworkers in Rural Poverty-----	July 22, September 21 and 22, 1971.
Part 2: Who Owns the Land?-----	November 5, 1971.
Part 3: Land Ownership, Use, and Distribution:	
A. San Francisco-----	January 11, 1972.
B. Fresno-----	January 12, 1972.
C. San Francisco-----	January 13, 1972.
Part 4: Role of Land-Grant Colleges:	
A.-----	June 10, 1972.
B.-----	June 20, 1972.
Part 5: Appendix: A. and B.	

CONTENTS

CHRONOLOGICAL LIST OF WITNESSES

TUESDAY, JUNE 20, 1972

Butz, Hon. Earl, Secretary of Agriculture, U.S. Department of Agriculture	Page 2502
Chiles, Hon. Lawton, a U.S. Senator from the State of Florida	2577
York, E. T., Dr., vice president for agricultural affairs, University of Florida, Gainesville, Fla.	2580
Cornwell, George, Dr., professor of wildlife ecology, University of Florida, Gainesville, Fla.	2681
The National Association of State Universities and Land-Grant Colleges represented by Dr. John T. Caldwell, chancellor of the North Carolina State University; Dr. Alvin I. Thomas, president of Prairie View A. & M. College in Texas; Dr. Orville Bentley, dean, College of Agriculture, University of Illinois; and Dr. George McIntyre, assistant dean, College of Agriculture, and director, extension service, Michigan State University	2750
Prepared statement	2776
Hadwiger, Donald, Dr., Iowa State University, Ames, Iowa	2806

STATEMENTS

American Farm Bureau Federation, presented by Matt Triggs, assistant legislative director, prepared statement	2551
Butz, Hon. Earl, Secretary of Agriculture, U.S. Department of Agriculture	2502
Chiles, Hon. Lawton, a U.S. Senator from the State of Florida	2577
Cornwell, George, Dr., professor of wildlife ecology, University of Florida, Gainesville, Fla.	2681
Prepared statement	2690
Hadwiger, Donald, Dr., Iowa State University, Ames, Iowa	2806
Prepared statement	2813
National Farmers Organization, prepared statement	2538
National Farmers Union, presented by Weldon V. Barton, prepared statement	2530
Staley, Oren Lee, president, National Farmers Organization, before the Democratic Platform Committee's Panel of Farming and Rural Life at Sioux City, Iowa, June 16, 1972, prepared statement	2542
The National Association of State Universities and Land-Grant Colleges represented by Dr. John T. Caldwell, chancellor of the North Carolina State University; Dr. Alvin I. Thomas, president of Prairie View A. & M. College in Texas; Dr. Orville Bentley, dean, College of Agriculture, University of Illinois; and Dr. George McIntyre, assistant dean, College of Agriculture, and director, extension service, Michigan State University	2750
Prepared statement	2776
Thomas, Alvin I., president, Prairie View A. & M. College, prepared statement	2706
Weiner, Jack, Orange County legal services project, December 3, 1971, prepared statement	2880
York, E. T., Dr., vice president for agricultural affairs, University of Florida, Gainesville, Fla.	2580
Prepared statement, with enclosures	2506

(v)

page IV is blank.

ADDITIONAL INFORMATION

Articles, publications, etc.:

"Analysis of Research Projects of USDA and Agriculture Experiment Stations," by Don F. Hadwiger, January 1972	Page 2813
"A People and a Spirit," a report of the Joint U.S. Department of Agriculture-National Association of State Universities and Land-Grant Colleges Study Committee on Cooperative Extension	2960
"Colleges of Agriculture Revisited," by Dr. H. R. Fortmann, regional coordinator, Northeast Association of State Agricultural Experiment Stations, Pennsylvania State University	3032
"Florida MH-1," circular S-212, agricultural experiment stations, University of Florida, Gainesville, Fla., September 1971	2810
"Keeping Them Down on the Cornell Farm," by Jim Hightower and Sarel Kandell	2884
"Organization of Personnel To Focus on Problems of Rural Development," by R. L. Kohle, Purdue University	2888
"Public Policy Research and the Political Process," by Don F. Hadwiger, professor of political science, Political Science Department, Iowa State University, Ames, Iowa, May 1972	2020
"Scope and National Concerns Underlying the Increased Emphasis on Rural Development," by Jerry B. Waters, Conference on Research Priorities in Rural Development, North Central Regional Center for Rural Development, Illinois Beach State Lodge, Chicago, Ill., May 9, 1972	2017
"Some Implications of Industrialization of the Food Sector of the U.S. Sector of the U.S. Economy," by Don Paarlberg, Purdue University	2057
The Extension Council Report, No. 26, director, J. B. Claar, May 17, 1972	2840
"The Freeman Administration and the Poor," by Don F. Hadwiger, professor of political science, Political Science Department, Iowa State University, Ames, Iowa	2045
"Tides of National Development," by Lauren Soth, Des Moines Register	2808
"Who Needs Help and How?" New Priorities for Economic Research, by Quentin M. West	3015
Communications to:	
Herzkov, Boren, counsel, Subcommittee on Migratory Labor of the Senate Committee on Labor and Public Welfare, Washington, D.C., from:	
Ford, Frank, president, Deaf Smith Organic Farms, Inc., and Arrowhead Mills, Inc., of Hereford Tex., June 23, 1971	2841
Segor, Joseph C., executive director, Migrant Services Foundation, Inc., Miami, Fla., June 15, 1972, with enclosures	2077
Sturt, Daniel W., Director, Rural Manpower Service, U.S. Department of Labor, Manpower Administration, Washington, D.C., June 23, 1972, with enclosures	2090
Stevenson, Hon. Adlai E., III, a U.S. Senator from the State of Illinois, chairman, Subcommittee on Migratory Labor of the Senate Committee on Labor and Public Welfare, Washington, D.C., from:	
Bentley, Orville G., dean, University of Illinois College of Agriculture, July 24, 1972	2843
Hadwiger, Don, professor of political science, Political Science Department, Iowa State University, Ames, Iowa, July 1972, with enclosures	3012
Liddle, Jeffrey L., representative, Mid-Hudson Valley Legal Services Project, Middletown, N.Y., June 10, 1972	2862
Staley, Oren Lee, president, National Farmers Organization	2537
Selected tables:	
"Institutions of higher education undergraduate enrollment by ethnic group"	2824

FARMWORKERS IN RURAL AMERICA, 1971-1972

(The Role of Land-Grant Colleges)

TUESDAY, JUNE 20, 1972

U.S. SENATE,
SUBCOMMITTEE ON MIGRATORY LABOR OF THE
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The subcommittee met, pursuant to recess, at 9:30 a.m., in room 1202, New Senate Office Building, Senator Adlai E. Stevenson III, chairman of the subcommittee, presiding.

Present: Senator Stevenson.

Committee staff present: Boren Cherkov, counsel; Basil Condos, professional staff member; and Eugene Mittelman, minority counsel.

Senator STEVENSON. The meeting of the Subcommittee on Migratory Labor will come to order.

This morning we continue our hearings on the role of land-grant colleges in rural America.

The subcommittee invited the presidents of three major farm organizations to present statements at our hearings—the National Farmers Union, the American Farm Bureau Federation, and the National Farmers Organization.

Unfortunately, because of schedule conflicts, they could not attend. They have submitted statements that I will enter in the record.

Copies of these statements are available to the press and others that may be interested.

(The prepared statements referred to follow:)

(2529)



National
Farmers Union

Statement of
National Farmers Union

presented by
Weldon V. Barton

on

Replacement of the Independent Farmer by
Corporate and Conglomerate Farms, Displacement
of Farm Workers by New Technology, and
other Topics Considered by the Report of
the Task Force on the Land Grant
College Complex.

before the

Subcommittee on Migratory Labor
Senate Labor and Public Welfare Committee
Senator Adlai Stevenson, Jr., Chairman

June 20, 1972

Mr. Chairman, Members of the Committee:

I am Weldon Barton, Assistant Director of Legislative Services, National Farmers Union.

I appreciate the opportunity to testify today on the land grant college system as it relates to replacement of the independent farmer by corporate and conglomerate farms, displacement of farm workers by new technology, and other problems covered by the report, Hard Tomatoes, Hard Times.

Farmers Union comes to this hearing today as a long-time supporter of agricultural research and extension. Each year, we go before the Senate and House Appropriations Committees and support funding requests for the land grant institutions. We do this because we recognize the vast potential for good that adheres in a research undertaking of almost \$750,000,000 a year.

At the same time, we have been convinced for some time, as the Task Force on the Land Grant College Complex points out, that there is room for substantial improvement in making tax dollars invested in the land grant system serve the needs of rural people and communities.

Tony T. Dechant, President of National Farmers Union, pointed to the unfortunate misdirection of much of agricultural research in a November, 1969, speech to the Association of State Universities and Land Grant Colleges:

"Agricultural research is systematically irrelevant. It is fragmented. It evades issues. It is, ultimately, corrupt of purpose. It has too often been research for its own sake, in which disciplines vie with one another. It has too often ignored the physical, economic and social environment that is the substance of competent disciplines. It has too often failed to serve the public interest, or has done so only incidentally."

Much of the research output of the land grant colleges is of limited relevance because it is directed to production efficiency, narrowly defined. I have heard voices raised from the land grant college community that, not only is agricultural research losing appropriations relative to non-agricultural research, but also field research in the experiment stations is not holding its own in budgetary allocations relative to "in house" U.S.D.A. research.

Obviously, a number of factors are responsible for the latter trend. Probably one important factor is that the Economic Research Service and other in-house units are conducting more marketing, social, and other non-production research than the experiment stations--research that is more relevant to the needs of farmers and other rural people. If so, the land grant colleges will be rewarded with larger budgets if they shift their research priorities away from production and toward marketing and other pressing needs.

Several areas of marketing in which greater research is badly needed are:

(1) International commodity agreements. In international markets, the commodity agreement among exporting and importing nations seems to be the most workable means of achieving a measure of stability with a reasonable price return to producers. This was the apparent lesson of the International Grains Arrangement on wheat, at least until 1969 when exporting countries including the United States undercut the minimum price provisions of the arrangement.

Despite the workability of the commodity agreement, the United States Government last year negotiated an extension of the wheat agreement devoid of any pricing provisions. Although wheat producers of the United States, Canada, and other nations have urged a workable agreement with minimum prices, they lacked a sound research base on which to work effectively to achieve this goal.

The land grant college system could provide this research. In doing so, the researchers would not be expected to subscribe to the preconceived views of any group, but only to assess the commodity agreement device as a means of achieving market stability and fair returns to producers on exported wheat and other commodities.

At the same time, any meaningful analysis of commodity agreements would have to determine "who gets what" from maintaining specific types of export wheat markets. How much profits are gained by the grain trade corporations in the absence of any agreement to guarantee minimum prices to producers? To what extent does the absence of such an agreement enable the United States to salvage unworkable domestic supply management programs and to achieve overall balance of trade--both at the short-run expense of the American farmer? Only if these kinds of questions were answered would the research be truly relevant in guiding policy decisions on commodity agreements.

(2) Another area of needed marketing research involves domestic marketing orders and agreements. Again, marketing orders have proven effective for milk and certain fruit, vegetable, and nut crops in the United States.

But many questions remain unanswered: How well will they work for grain crops such as wheat and corn? How can farmers be informed concerning the possibilities of marketing orders for the commodities they produce, and kept informed after orders are established so that they can participate meaningfully in decisions made under the orders? Who gets what from opposing the extension of orders to other commodities? How are processors, end-product manufacturers, and retail food chains affected?

(3) The recent controversy over meat price levels indicates that farm-retail food price spreads is another area in which marketing research should be expanded.

In testimony before the Price Commission during April of this year, Farmers Union pointed out that a so-called "volatile pricing" rule, which was followed by the Price Commission in regulating pricing decisions of meat processing firms, was predicated upon an inaccurate assumption about the past behavior of these processing firms. The rule assumed that the processors immediately adjusted their selling prices to changes in prices paid by them to farmers for livestock; whereas available data indicated that this was not, the actual past behavioral pattern. Instead, available data (from the Economic Research Service, U.S.D.A.) showed that processors customarily had absorbed a part of the increases in livestock prices in the short run, in the assurance that they could more than make up for this by expanding their profit margins when prices to the farmer began to fall.

The result was that, whereas the pricing behavior of the firms prior to "Phase II" had been a partial stabilizing element in meat prices to the consumer, the volatile pricing rule encouraged processors into a pricing pattern that accentuated the cyclical nature of retail beef prices. This led to higher retail beef prices in the short run, and contributed to consumer dissatisfaction.

My point is: we need continuing, in-depth analysis of producer-processor-retailer food price spreads, so that any regulatory program can be based upon hard data rather than hunches and processor-supplied information.

- 4 -

In addition to marketing research, the land grant college complex has the potential for applying systems analysis to a number of socio-economic problems that now tend to be approached in narrow, efficiency-dominated terms.

For instance, discontinuation of rail passenger and freight service in rural areas is a problem that could usefully command the time of teams of land grant college researchers. The Interstate Commerce Commission, which admittedly can plead a lack of adequate analytical personnel to conduct comprehensive studies, generally bases its decisions concerning rail branch line abandonments on whether the line is self-sufficient financially.

Much broader analysis should be conducted before an abandonment of rail service is approved. For instance, research should determine: What effect will the abandonment have on the vitality of rural communities served by the line? Will loss of rail service render attraction of industry to the area impossible--thus working at cross purposes with emerging rural development policies? How will farmers move their produce to market in the absence of rail service? Will abandonment make it more difficult to deliver health services and to meet other needs of people--including the rural poor--in the area?

Of course analysis of a problem in this way is difficult, and may require many man-years of effort. But the land grant college complex has the personnel, and research that includes the broader social considerations and costs can lead to much better decisions than the narrow production-efficiency model that is commonly followed by land grant researchers.

Anyone who doubts that good decisions require research broader than production efficiency should ponder the current status of agricultural pesticides. No one can say precisely what the result might have been if we had considered--from the beginning--in our pest control research the environmental pollution and hazards to the health of farm workers that chemical insecticides were bound to create. But there is little doubt that all of us would have been better served if pollution of the human and physical environment had been an integral part of our planning from the beginning.

Many other examples of people-oriented research needs could be given. The question is: How can the land grant college system move into these relevant research areas?

The Task Force on the Land Grant College Complex rightly concludes that land grant research too often directly serves agri-business firms--especially farm machinery and chemical companies--and serves family farmers, farm workers, and other rural people incidentally, if at all. The problem, as the Task Force reveals, is that "seed money" invested by agri-business in research projects tends to control the focus and orientation of research that is financed largely with public funds.

In our view, we cannot expect individual professors and graduate students to forego the lure of this seed money and devote themselves to research in the public interest. Some will do so, but not significantly enough to change the system. Research scientists are more likely to accept the world of "pure efficiency research," untainted by the seemingly intractable considerations of broader social costs.

Neither, we think, can we expect specific land grant institutions on their own initiative to shift their orientations significantly. Whereas the individual research scientists compete with one another for prestigious research assignments, the institutions vie with one another for monies from agri-business and for trained personnel to conduct the research.

What is required is more access of the public-at-large to decisions in land grant institutions that establish research priorities, and more direction of the institutions by the Congress and other officials responsible to rural people generally. Only in this way can countervailing power be mobilized that can overcome the dominating influence of agri-business over research and extension in the land grant institutions.

Of course, greater direction of the colleges "from the top"--that is, from the Secretary of Agriculture and his subordinate Washington-based agencies and personnel--will be ineffective to the extent that top officials are themselves oriented toward the same corporate agriculture and agri-business interests with which the land grant colleges and professors directly interact. Although more dramatic and immediate issues tended to prevail during Senate consideration of nominee Earl Butz last November and December, the research orientation of the land grant college complex is certainly among the most crucial--if it is not the most crucial--long range implication of his Secretaryship. It is in agricultural research and extension that the "quiet revolution" toward corporate and land-baron agriculture is proceeding deliberately but surely.

- 6 -

Particularly in the absence of hierarchial redirection of the land grant colleges through the Secretary's office, Congress must play a larger directing role. In addition to continuing oversight, legislation is needed earmarking public funds for specific public purposes (such as the research projects described above), and preventing corporations from earmarking contributions to the land grant college system for specific research that is proprietary in nature.

To provide greater access for the public-at-large (family farmers, other rural residents, etc.), Congress should encourage changes in the national advisory and policy-making apparatus to assure input from these broader constituencies. Legislation now pending in the Senate Government Operations Committee (S. 3529), of which Senator Metcalf has been a prime mover, provides a possible vehicle for such changes.

In conclusion, allow me to repeat that these recommendations are made in the spirit of rendering efforts of the land grant college system more relevant and useful in the public interest. They are made with the intention of improving and strengthening the land grant institutions as servants of family farmers, workers, and rural people generally. To the extent this can be done, everyone--land grant institutions and their legitimate constituencies alike--will be better served.

Thank you.

TELEGRAM:

SENATOR ADLAI E. STEVENSON, III
CHAIRMAN, SUBCOMMITTEE ON MIGRATORY LABOR
COMMITTEE ON LABOR AND PUBLIC WELFARE

I APPRECIATE THE INVITATION TO TESTIFY ON THE REPORT
HARD TOMATOES, HARD TIMES, BUT IT WILL BE IMPOSSIBLE FOR ME
TO APPEAR ON THE DATE SCHEDULED BECAUSE OF A DEATH IN THE
FAMILY. THIS REPORT IS TIMELY. IT APPEARS TO BE FACTUAL.
I HAVE ASKED MR. FRAZIER OF OUR WASHINGTON OFFICE TO DELIVER
THE NFO'S STATEMENT TO YOU AND BE AVAILABLE TO ANSWER QUESTIONS
IF THAT WILL BE HELPFUL.

OREN LEE STALEY, PRESIDENT
NATIONAL FARMERS ORGANIZATION

National Farmers Organization
Before the Subcommittee on Migratory Labor
Committee on Labor and Public Welfare
U. S. Senate
Senator Adlai E. Stevenson III, Chairman
June 20, 1972

Subject: Hard Tomatoes, Hard Times

This preliminary report written by Mr. Jim Hightower of the Agribusiness Accountability Project apparently seeks to direct the attention of all people concerned with agriculture and the welfare of rural people to the policies guiding the funding and administration of the land grant college complex. Contents of the report verify the author's stated objective -- to provoke a public response that will help realign the land grant colleges and related activities with the public interest.

The NFO is primarily concerned as an organization in the bargaining processes necessary to negotiate better returns for its members on the major farm commodities produced and sold under our contracts throughout the U.S. Many of our members and employees are graduates of land grant colleges. The levels of income, marketing patterns, methods of production, and in fact, the daily lives of practically all farm people are influenced by the findings of our agricultural research institutions and the educational and extension activities that carry the results of that research to the point of application. I shall not dwell on the point but it must be emphasized that this report raises fundamental questions of policy that are of great significance to all who are interested in food as producers, workers or consumers.

We believe the author has performed a valuable public service by assembling the factual material in the report and calling for a review of the priorities followed in the allocation of all resources available for research and agricultural educational activities. Let there be no misunderstanding. Any fair appraisal must acknowledge that the very high levels of efficiency in agricultural production attained in this country must be attributed to two broad motivating sources -- first, there is the tremendous contribution of the research activity that has developed new varieties and strains; labor saving methods based broadly on the wide use of chemicals and efficient equipment, and the training of many people to take advantage of these improvements -- and second, the willingness of farm operators to commit the necessary capital and assume most of the risk necessary to utilize and refine the new ideas in practical application. Our accomplishments have been the envy of the world when attention has centered only in volume of production and response to outright need for food to sustain the expanding world population.

However, the obsession with increasing efficiency in production reached such a level during and after World War II that other areas of concern have been overshadowed if not intentionally neglected.

This trend has no doubt been strengthened and encouraged by some well-intentioned larger operators in farming or related activity because they have been confronted with escalating costs, an inadequate price structure in most commodities and the resulting pressure to become ever larger as a means of survival. Some of them have thus unwittingly participated in speeding up the technological

revolution in farming that has forced so many people to leave the land and the small towns in rural America. Others acted from purely selfish motives.

The dilemma facing all of us today is best illustrated by the quotation on page 113 of the report. Dr. Don Paarlburg, currently the director of economic activities in the Department of Agriculture in commenting on the need for change in direction of research said in 1968, "About all that happened was that we succeeded in renaming a few projects, getting the word 'adjustment' inserted in the titles, with no real change in the nature of the studies."

The National Farmers Organization strongly supports the Family Farm Act, S.2828, introduced by Senators Nelson, Hughes and others to take the conglomerates and integrator corporations out of farming. It is consistent for this organization to call for a thorough study of the recommendations in the report Hard Tomatoes, Hard Times. Our members are seriously concerned about the continuing expansion of influence and control over agricultural activities in this country by the agribusiness interests. We are confident that a number of capable people associated with the agricultural institutions will welcome a review of policies guiding their activities.

In conclusion, we compliment the Chairman and the members of this committee for their interest in the report. It is recommended that inquiry and action by the Congress proceed until we can have

recognizable reforms, particularly in these areas:

1. Acknowledgement that it is both economically and socially desirable to reverse the trend of out-migration from farms and rural areas to urban areas, and development of research projects to assist in keeping family farmers on the land and our rural communities viable.
2. Shift of a substantial portion of the half-billion dollar annual public investment in research from production-oriented projects to work related directly to the problems of small and average income farmers.
3. Concentration of marketing research work on the needs of producers rather than the problems of the manufacturer, wholesaler, jobber and retailer in the food processing and marketing chain.
4. Strengthening of the control and direction of research and extension activities by the responsible USDA agencies wherever federal funds are committed, so they may insist that expenditures be redirected toward helping farm people who most need the help. For example, a small strawberry producers' cooperative is entitled to as much help and attention as any large agribusiness problem.
5. Complete separation of the activities of land grant college officials and control of research funds from any influence of the agribusiness concerns.

The problem before us is to restructure and change direction in the land grant institutions that have been of great service in the past. They may well be of value to all rural people in the future as they were surely intended to be when first authorized and funded.

For Release upon presentation,
June 16 A.M., at Sioux City, Iowa

FARM AND RURAL POLICIES
FOR 1972

(Statement of President Oren Lee Staley of the National Farmers Organization before the Democratic Platform Committee's Panel of Farming and Rural Life at Sioux City, Iowa, June 16, 1972.)

Mr. Chairman, I have several policy suggestions to make, but I would like to open my statement today by urging you to condemn a set of proposals already made for agriculture in America.

The U.S. Department of Agriculture has developed a set of farm policies that should be repudiated by both political parties, without equivocation, if they seek the votes of farmers or support of any of the residents of rural America.

They are contained in an outline called "New Directions for U. S. Agricultural Policy" developed by the U. S. Department of Agriculture's Young Executives Committee. The plan suggests abandonment of the farm price support programs for wheat, cotton, corn, other feed grains, dairy products, wool, sugar, peanuts, tobacco -- everything given any price support -- with a resultant \$6 billion loss in net farm income, now optimistically predicted to run \$17 billion this year. The estimates are theirs, so I do not exaggerate the dollar loss.

Former Secretary of Agriculture Clifford M. Hardin set up the Young Executives Committee of 15 USDA administration officers to study and map a new farm policy. The Committee was continued by Secretary Earl L. Butz. Its report has now been submitted but was

under wraps until we obtained a copy and published a summary of its contents in the NFO Reporter this week. Although the plan is supposedly a New Generation view and recommendation on farm policy, it is really only an expanded version of an old, shopworn, 5-year-phase-out plan first advocated by the Committee for Economic Development. The CED was a big business off-spring which attempted to disguise its propaganda as scholarly research. Its objective in agriculture is conglomerate, corporate control. The time has come when the giants want to move in on agriculture as they have in the past on retailing, broiler production and other areas of widespread, independent ownership. They use the CED to get "scholars" to expound their views and propaganda and give them a supposedly objective, learned cloak.

USDA's Young Executives, the preface to the report reveals, had their heads poured full of the old ideas at seminars with other Department officials and outside speakers in Washington before they were turned loose on their own. Then they split into groups which visited Mississippi, South Central Texas, California and Washington to learn about farming and the food business first hand. They obviously learned about most of the Nation's farming country flying over it in jet airplanes at 30,000 to 40,000 feet. They didn't land in the Northeast, Southeast, Cornbelt, Middle West or Northwest Great Plains, according to their own account.

Upon re-assembling and discussions in Washington they drafted for the Secretary the supposed New Generation views on farm policy which are actually a rehash of some very old and some very bad ideas.

I offer the Committee a copy of the document for reference. I regret I do not have more, but I can supply copies of the NFO Reporter with summaries of the proposals.

Among the recommendations are:

1. Phase out farm price support programs over a period of five years.
2. Reduce non-recourse loan rates to 'disaster levels' for wheat and feed grains and zero for other crops, and lower the disaster level loans if supplies are large.
3. Discontinue Farmers Home Administration real estate and operating loans, and review the need for subsidized soil and water and grazing association loans.
4. Limit crop insurance to risks not privately carried and end all government support of the program.
5. Phase out programs, such as the program for dairy products.
6. End the wool, sugar, tung nut, naval store programs based on national defense needs.
7. Forget people and farm family income and be concerned solely with the viability and efficiency of the industry.
8. Put busted farmers on President Nixon's Family Assistance (Welfare) plan, not yet adopted.

The blueprint itself estimates that termination of the farm programs, and loss of income because increased volume of sales would not offset price losses, would total \$6 billion annually -- more than 35% of this year's estimated \$17 billion net income. That's all right, the document assures us, because it will not destroy agriculture's ability to produce enough food and fiber. A lot of farmers will be busted and rural communities destroyed, but that is held to be inconsequential, if not desirable.

Gentlemen, if this unreleased and closely held internal document were put into effect -- and we want to be sure it is not proposed and

and pressed on Congress in 1973 -- there would be another 2 million farm families "released" from agriculture and hundreds of thousands of rural communities and business enterprises "released" from operation. And there would be little hope for most of them except getting under the Family Assistance Plan, which President Nixon proposed to give \$2400 annual income to a family of four. That much of the program former Secretary Hardin advocated in 1970 at the House Agriculture Committee conferences on farm policy.

The Young Executives proposal has not been made official policy, but its persistent reappearance, each time from a source a step closer to top policy making levels, makes it important that it be dealt with without equivocation; it is time that it is buried once and for all, and party platforms are an excellent place to do it. Let me turn now to some affirmative suggestions.

The National Farmers Organization is a party to the policy proposals contained in the statement of the Farm Coalition, adopted at their National Farm Leaders Conference in St. Louis on June 5, and submitted here by the Coalition Chairman, Mr. Fred Heinkel.

(It is an excellent outline of broad policies which we support. We agree that farmers must have parity in all respects -- prices, income, services, taxation, health, education, etc.

We would like to mention two specific suggestions which should be reviewed in relation to price supports:

First Congress should fight for minimum legal floor prices for agricultural products, authorizing marketing orders for all products, including supplies for processors, to balance supply with need, whenever a majority of producers vote in favor of such orders. The NFO will use such legal minimums as a floor for bargaining.

We renew our proposal of 1968 that farmers be allowed to determine by referendum the level of price support, with appropriate production limitations.

The Secretary of Agriculture would establish various levels of support, starting with 90% of parity and scaling downward, setting out the production controls that would accompany each level of support. Farmers would then vote to decide which program they want. For example, at 90% of parity they would have to accept more strict controls than would be applicable at lower price support levels. Let the farmers themselves decide the price support level, conditioned on acceptance of appropriate adjustment of supply to need.

We believe that a Commodity Reserve of storables like wheat, corn, grain sorghum and soybeans to help stabilize supply and assure consumers of adequate supply at all times, should be adopted. These reserves should be held on farms to the extent possible.

We are strong believers in the Crop Insurance program, the Farmers Home Administration loan programs, and in the use of every possible government device and assistance in getting usurious interest rates down for farmers and everyone else. Inflation in the cost of capital is the worst inflation we have. It is built into the price of everything and feeds inflation across the board. It might be wise if the Federal Reserve Banks and other price-setters in the money market were subjected to rollback price controls.

The National Farmers Organization strongly believes the American family farmers can only survive if they achieve the ability to bargain collectively for their products; they must band together in sufficient numbers with sufficient volume of all production to

price their products as manufacturers and everyone else sets their own price.

The Capper-Volstead Act of 1922 provides -- and I quote from it directly:

"That persons engaged in the production of agricultural products as farmers, planters, ranchmen, dairymen, nut or fruit growers may act together in associations, corporate or otherwise, with or without capital stock, in collectively processing, preparing for market, handling, and marketing in interstate commerce, such products of persons so engaged."

The NFO does not want the rights assured by that law abridged.

We think it gives us full authority to organize and bargain.

We do not want any tampering with it.

We do not want to see a government board determining who can bargain for producers. We do not want the government given a role in the bargaining process. Laboring people select and man their own unions and do their bargaining. Farmers should, too.

NFO has a sizeable number of producers in membership. We bargained over 7,000 contracts for the sale of their products last year and will bargain more this year. Processors and other buyers will bargain if you have what they need. We don't need a policeman to drag them in. Our job is to get the production they need organized and blocked and when we do that they will bargain.

We certainly do not want a politically-biased board appointed by the President or anyone else set up to license bargaining agencies; we want the bargaining left in the hands of the farmers themselves, acting directly or in groups such as our NFO group.

The major assistance that government can give family farmers is protection from the take-over of agriculture by corporate and conglomerates. We need legislation prohibiting farming or monopolistic control of production by those corporations whose resources and income are derived primarily from non-farm sources, as proposed in the Abourek and Hart-Nelson bills now pending in the House and Senate.

The NFO believes there should be minimum and maximum price provisions in international grains agreements to assure farmers everywhere a decent return for their commodities. We oppose the price cutting policy now being employed to expand our farm exports at the expense of farmers and ranchers.

We are very much disturbed, Mr. Chairman, with the movement of high officials back and forth between giant agribusiness corporations and the Department of Agriculture and believe that the law applicable to the Defense Department, prohibiting military personnel from going with companies which supply the military for two years after leaving the Armed Services, should be extended government-wide. Certainly it should apply to Department of Agriculture's top officials.

The Hardin-Butz exchange between the Department and Ralston-Purina, and the more recent move by an Assistant Secretary to Continental Grain Co., to be succeeded by a former official of the Cooke grain firm gives farmers an uneasy feeling that Agribusiness is in complete charge at USDA and real dirt farmers and ranchers are on the outside peaking in.

And the fact that a plan has been hatched by an official group

to end farm programs at a cost of \$6 billion in farm income bolsters that conviction.

We not only need to keep a Department of Agriculture instead of dismantling it as the President once proposed, we need to keep farmers -- not Agribusiness -- in charge of it.

The National Farm Coalition has dealt with transportation, rural electric co-ops, rural telephone co-ops, and energy policy. We back their position. REA and RTA must be fully funded.

ACP/REAP, the SCS and other conservation programs should likewise be adequately funded. We strongly favor rural development, and we also strongly endorse the position that the No. 1 way to achieve rural redevelopment is with improved farm income.

Farmers will make rural towns blossom if they have the money, and they will conserve resources of every kind if they are not forced to exploit them to keep the sheriff away.

In closing, let me urge you again to assure farmers and rural America that your party will have no part of the USDA Young Executive Committee's plan to destroy all farm programs, to which I referred in the outset of my testimony.

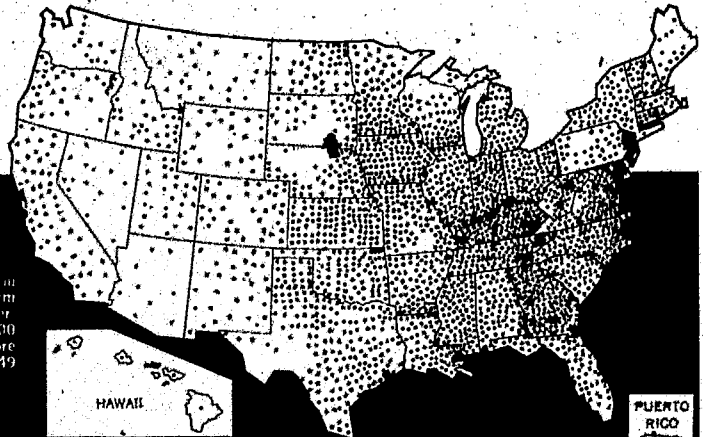
Farm Bureau is a free, independent, non-governmental, voluntary organization of farm and ranch families united for the purpose of analyzing their problems and formulating action to achieve educational improvement, economic opportunity, and social advancement and, thereby, to promote the national well-being. Farm Bureau is local, statewide, national, and international in its scope and influence and is non-partisan, non-sectarian and non-secret in character.

**LAND GRANT COLLEGES, AGRICULTURAL
STRUCTURE AND RELATED LEGISLATION**

Presented to
SUBCOMMITTEE ON MIGRATORY LABOR
OF THE SENATE COMMITTEE ON LABOR AND PUBLIC WELFARE

By
Matt Triggs, Assistant Legislative Director

June 20, 1972



The American Farm Bureau Federation is a general farm organization with a membership of more than 2,000,000 member families in more than 2,800 counties in 49 States and Puerto Rico.

Organized County Farm Bureau

STATEMENT OF THE AMERICAN FARM BUREAU FEDERATION
 TO THE SUBCOMMITTEE ON MIGRATORY LABOR
 OF THE SENATE COMMITTEE ON LABOR AND PUBLIC WELFARE
 RE: LAND GRANT COLLEGES, AGRICULTURAL
 STRUCTURE AND RELATED LEGISLATION

Presented by Matt Triggs, Assistant Legislative Director
 June 20, 1972

We appreciate the invitation extended to us to present the views of the American Farm Bureau Federation in response to the Chairman's letter of June 2.

We would like to file with the Committee a copy of "Farm Bureau Policies for 1972" as developed by the voting delegates of the member State Farm Bureaus in December, 1971, which provides the major basis for the following statement.

Agricultural Research

The agricultural research programs of the Land Grant Colleges are not equalled in any other country. They are envied and emulated by other nations. Delegations from other countries are constantly in the United States to review the output and the processes of this research activity.

These research programs have made a major contribution to providing consumers with an unparalleled variety of high quality farm products at reasonable prices.

Increasing volumes of U.S. exports of farm products are making a major contribution to the solution of our continuing balance of payments and trade deficit problems. Despite the impact of inflation on our cost structures, farmers have been able to expand farm exports in each of recent years and are one of the few segments of the domestic economy that has been successful in doing so. This successful effort is possible because of the gains in productivity of the U.S. farmer--gains made possible by private and public agricultural research and education.

The research activities of Land Grant Colleges should be continually reevaluated to meet the growing needs for more technical information and product improvement. This evaluation goes on continuously as farmers consult with and submit recommendations with respect to such activities.

It is alleged in "Hard Tomatoes--Hard Times" that the research and extension programs of the Land Grant Colleges are primarily directed to serve the needs of large farmers and "agribusiness". We believe this allegation has little validity. On the whole we believe the historic mission of the Land Grant Colleges, as provided in the authorizing legislation, has been well and faithfully performed and represents a major service to farmers and consumers.

We agree with the quoted preamble of the concluding chapter of "Hard Tomatoes--Hard Times" that, "In their ability to serve the changing needs of a changing nation, the Land Grant Colleges and Universities have demonstrated their value."

The Land Grant Colleges have been changing with changing times. It is not fair to charge that these institutions have been devoting all their energies to commercial farmers and agribusiness. On the contrary, many farmers have expressed increasing concern that the emphasis being given to a variety of other responsibilities and assignments is reducing the ability of the colleges to serve the needs of farmers.

The mechanization of agriculture is part of the industrial revolution. It was underway long before the Land Grant Colleges were established, and would have proceeded--although at a slower pace--in the absence of these institutions. The colleges did not invent the internal combustion engine, the airplane, or the electric motor--all of which have agricultural applications. Where the Land Grant Colleges have worked on mechanization, the objective has not been to develop products for agribusiness to manufacture, but rather to help farmers meet real problems such as high costs or a shortage of labor.

We note the comments in "Hard Tomatoes--Hard Times" regarding the composition of USDA and Land Grant College research advisory committees. This really relates to differences of opinion with regard to the type of research that should be undertaken. The research problems dealt with by these advisory committees are usually highly technical in nature. If institutions are to get useful advice on such questions the advisory committees must be composed of people who know something about the problems

to be researched and the state of the appropriate research arts. Some descriptions of research projects and some excerpts from research reports can be made to appear a little silly when taken out of context. But the overall conduct and results of research by the Department of Agriculture and cooperating Land Grant Colleges have been very good, and the advisory committees have made significant contributions to the success of such programs.

The initial beneficiaries of agricultural research are people on and off farms who put new knowledge to use. The ultimate beneficiaries, however, are consumers who receive more and better products at lower prices as a result of the efficiencies discovered through research. Farm Bureau's policies do not include any recommendations relating to the future role of "The Colleges of 1890".

Accountability of Land Grant Colleges

We do not believe that major changes are needed to make the Land Grant Colleges more accountable to the public interest.

Some change in practice with respect to a greater degree of public disclosure of Land Grant College activities, including research projects, administrative operations, foundation activities, fiscal policies, patent and licensing practices, industry contributions and potential faculty conflicts of interest, is recommended. ..

We believe that some of the consulting activities engaged in by faculty members do involve a potential conflict of interest. We have no objection to a policy of permitting faculty members to work with agribusiness firms to a limited extent. However, to avoid conflicts of interest we believe that full-time faculty members should be required to turn consulting and similar fees over to the university treasury.

Agricultural Extension Service

We believe that the cooperative agricultural extension service has made and continues to make an outstanding contribution to the welfare of farm people.

The services of the extension service are of particular importance to small and medium sized farmers. Most large farmers have or can obtain professional assistance from other sources or are competent from their own education and experience to deal with the problems they encounter in their farming operations.

The increased productivity of farmers has resulted in adequate farm product supplies of a wide variety of commodities for consumers. The American consumer pays a smaller percentage of his total income for food than do consumers in any other country. The extension service has contributed substantially to this accomplishment.

All personnel of the Extension Service are not, of course, equally competent--but farmers have a high regard and respect for the Service as a whole and for most of the individuals in the Service. Attendance at farm meetings in which Extension personnel participate will evidence this high regard.

Rural Development

The House and Senate have approved the Rural Development Bill which is currently awaiting action by the Conference Committee. We have supported the enactment of this bill.

This bill provides funds and authorization to improve living conditions in rural areas through such programs as pollution abatement, water supply and community centers, and to provide more jobs in rural areas through the establishment of industrial centers and government guaranteed loans. The loan authority for various existing rural development programs is expanded. The Land Grant Colleges are given a new responsibility for research in ways and means of improving living standards in rural areas.

This bill is intended to alleviate some of the problems referred to in testimony presented to the Committee.

The Structure of Agriculture

As the Committee well knows the structure of U. S. agriculture has changed and is continuing to change. Included among the basic causes of this change are the concentration of the population in large urban areas, the affluent character of our society, and the modification of production and marketing patterns to fit these changes.

In general there is not much room in the market picture for very small lots of farm produce. What the mass market requires is car lot quantities of uniform quality produce--whether fruit, vegetables, eggs, poultry, milk, or other consumer products.

U. S. agriculture is changing to meet these market needs. Average farm size is increasing. But to assume that commercial agriculture is composed mostly of large corporate enterprises tied together with suppliers in an "agribusiness" combine is inaccurate.

The most comprehensive information available on the extent of corporate farming is a USDA report entitled, "Corporations with Farming Operations". This report was published in 1971, based on a 1968 survey. It indicates that "13,300 farming corporations operated seven percent of U.S. farmland, representing one percent of all commercial farms."

Data just released by the 1969 Census of Agriculture report that 85.4 percent of all farms with sales of \$2500 or more were operated by families or individuals, 12.8 percent by partnerships, 1.1 percent by corporations with 10 or fewer stockholders, which are usually family corporations, and 0.1 percent by corporations with more than 10 stockholders.

In Illinois, which is rather typical of the Midwest, there were 84,192 family or individual farms, 535 corporate farms with 10 or fewer stockholders and 63 corporate farms with more than 10 stockholders.

Even in California, which is sometimes cited as a stronghold of corporate agriculture, the Census found 43,421 individual or family operated farms, 8,193 partnership farms, 1,717 corporate farms with 10 or fewer stockholders and only 217 corporate farms with more than 10 stockholders.

Off Farm Income

The importance of off-farm income to farm families and particularly to small farm families is indicated by the following table excerpted from Table 5D of "Farm Income Situation" July, 1971, USDA.

Income of Farm Families 1970

<u>Class by Value of Sales</u>	<u>Net Farm Income</u>	<u>Off Farm Income</u>	<u>Total</u>
\$40,000 and over	\$25,664	\$5,803	\$31,467
20,000 to 39,999	9,962	3,503	13,465
10,000 to 19,999	6,208	3,452	9,660
5,000 to 9,999	3,492	4,984	8,476
2,500 to 4,999	2,049	5,465	7,514
Less than 2,500	1,059	7,954	9,013

We therefore must express concern with respect to any effort to reduce the opportunity of farm families to earn off-farm incomes.

One of the substantial sources of off-farm income for farm families is the transportation of farm products by motor vehicle. This opportunity is made possible by the exemption from economic regulation of trucks engaged in the hauling of farm products. Many farmers use their trucks to haul farm products for neighbors and other farmers on a for-hire basis when such trucks are available during idle periods on the farm.

The opportunity of farmers to earn this supplementary income is jeopardized by a bill under consideration by the Senate Commerce Committee, S. 2362. This bill represents the proposals for transportation legislation submitted by the regulated carriers. Among other provisions, S. 2362 would narrow the agricultural exemption by providing that certain farm products--livestock, processed poultry products, processed milk products, redried tobacco, and shelled peanuts--would no longer be exempt (farmers could no longer haul such products on a for-hire basis).

We urge that the Congress reject this carrier proposal to narrow the opportunity of farmers to earn supplemental income.

In lieu thereof we recommend the enactment of legislation to authorize an exemption from economic regulation of trucks engaged in hauling feedstuffs and fertilizers. We believe this would not only enhance the opportunity of farmers and other rural people

-7-

to earn supplemental income from hauling such products, but also provide better and more economical transportation of these products.

Marketing

An increasing percentage of the nation's agricultural production is produced under contract. Since the parties to the contract are comparatively large processors, on one hand, and many farmers--large and small--on the other, the bargaining position of farmers needs new institutional structuring to meet the changing situation.

Innumerable efforts have been made by farmers--some successful, others less so--to pool their bargaining power and to bargain collectively with buyers. This effort is often defeated by a flat refusal of buyers to recognize or negotiate with associations of farmers.

Bills have been introduced--in the House by Representative Sisk and 87 other Representatives and in the Senate by Senators Curtis, Tunney, and 14 others--to require buyers to negotiate in good faith with associations of producers with respect to production and sales contracts.

At our last annual meeting the voting delegates said "The declining number of buyers, processors, and handlers of farm products enhances opportunity for collusion and necessitates effective action to avoid monopolistic practices in the procurement of farm products." We believe the enactment of the Sisk-Curtis-Tunney bill is a reasonable but moderate approach to curtailing the monopoly power of farm product buyers.

We believe the enactment of such legislation is particularly essential for the survival of many small farmers as agricultural producers. Larger farmers usually have a greater degree of bargaining power than small farmers, because they have a greater tonnage to bargain with and because large farmers ordinarily have a greater number of feasible alternatives.

We commend the members of Congress who have sponsored this legislation. We seek the support of other members of Congress for its enactment. We urge that the Committee recommend the enactment of the Sisk-Curtis-Tunney bill as a means of improving the bargaining position of farmers.

Credit

Adequate credit is a necessity for farmers. This is particularly true of smaller farmers since larger farmers ordinarily have better access to commercial credit.

Congress has enacted legislation to create three major agricultural credit institutions: the Farm Credit Administration, the Farmers Home Administration, and the Rural Electrification Administration:

These institutions have served farmers, particularly small farmers, well. We have no recommendations for any major modification of these credit programs.

However, the Congress is giving consideration to proposals for creation of a Department of Community Development to which most of the Farmers Home Administration and all of the Rural Electrification Administration would be transferred.

We believe that the transfer of these agencies to a newly created agency, which inevitably would have a primary interest in urban development, would likely dilute and lessen the attention given to farmers' credit needs. We urge opposition to any transfer of these agencies from the Department of Agriculture.

Cooperatives

Cooperatives play and can play an increasing role in preserving the economic viability of small and medium sized farms. The benefits of efficient cooperatives include:

1. Cooperatives make it possible for many small farmers to supply the needs of the market for large lots of uniform high quality produce.
2. Cooperatives enhance competition and help curtail monopolistic practices that may develop in the marketing of farm products.
3. Cooperatives are usually leaders in improving the grading and quality standards in an agricultural industry.
4. Cooperatives aid in disseminating information to producers relating to production and marketing improvements.

Periodically other business interests attack the tax status of cooperatives. We believe any criticism in this respect is unwarranted. All the earnings of cooperatives are taxed when distributed to or credited to the patrons. Taxes are paid directly by the cooperative on any earnings not so distributed.

It is not an exaggeration to point out that the economic survival of many small and medium sized farmers is closely related to the availability of effective and efficient cooperatives.

We are opposed to any efforts to tax cooperatives on disbursements or credits taxable in the hands of patrons--or any other measure which would have the effect of curtailing the capacity of cooperatives to serve the needs of farmers.

Farm Labor Relations Legislation

We believe the time has come to enact legislation governing the relationships of farmers and farm workers.

We believe such legislation should involve the following:

- Administration by an independent farm labor relations board
- Secret balloting by workers on representation questions
- Essentially the same list of unfair labor practices as are set forth in the National Labor Relations Act, and particularly the prohibition of secondary boycotts
- An exemption for small farmers
- The preservation of state laws relating to compulsory unionism
- The right to seek damages for unlawful boycotts
- Availability of an arbitration procedure

The question most frequently asked in this connection is, "Why not the National Labor Relations Act?"

Among other reasons is the fact that the National Labor Relations Board is overloaded. Its case load has increased 150 percent since 1950. Long delays between the filing of complaints and ultimate decisions are usual. We believe that a small specialized board, which could develop simplified, fast, and innovative procedures and give special handling where circumstances warrant, is an absolute essential of a workable farm labor relations program in agriculture. The delays common in the administration of industrial relations by NLRB, would mean that agricultural cases would not be decided until long after the harvest season was over and the workers scattered to other areas or employers.

In the House, Representatives Leggett, Quie, Ullman, and Teague have introduced a bi-partisan bill to provide a means of stabilizing relations between farmers and workers. We have reservations with respect to some features of this bill, but we are recommending its enactment. We believe the enactment of this or similar legislation is in the interest of both farmers and workers.

Unless federal legislation is enacted the area involved will be occupied by a variety of state laws of varying provisions. Five such state laws have already been enacted. Kansas, Arizona, and Idaho enacted statutes this year. Statutes covering farm workers were enacted in Texas and Wisconsin many years ago.

We appreciate the opportunity of presenting these policies of the American Farm Bureau Federation.

Senator STEVENSON. Yesterday we heard from critics of the land-grant college complex. For the most part we will be hearing from its defenders today.

Our first witness is the Secretary of Agriculture, Dr. Earl L. Butz.

Dr. Butz has been involved in agriculture all of his life; he is a graduate of a land-grant college, he received a Ph. D. from Purdue, and he was associated with that university as a professor in its department of agricultural economics, and was dean of agriculture, and he was vice president and director of the Purdue Research Foundation.

He has had some associations in the past with such corporations as Ralston-Purina.

It is a pleasure to welcome you this morning, Mr. Secretary, to the subcommittee.

**STATEMENT OF HON. EARL BUTZ, SECRETARY OF AGRICULTURE,
U.S. DEPARTMENT OF AGRICULTURE**

Secretary Butz. Thank you very much, Mr. Chairman. I have a short statement that I would like to read and, if you have any questions, you may proceed with them.

At the table I have Dr. Ned Bayley, who is Director of Science and Education in the Department of Agriculture, and Ed Kirby, Administrator of our Extension Service. They are both here to assist with questions in case there are any at the end of the testimony.

We appreciate the opportunity of appearing before this subcommittee during its hearings on land-grant colleges.

The Department of Agriculture is a full partner in the land-grant college system. I have spent my entire professional career in this system. I am proud to discuss our programs with you today.

In your invitation to us to testify, Mr. Chairman, you raised specific questions indicating the scope of your interests. You will find that the answers to these questions are covered in my statement and I will be glad to answer other questions the committee may wish to ask.

The land-grant colleges were authorized in 1862, the same year, for the same purpose, as the Department of Agriculture—to support the development of a more efficient agriculture.

The Hatch Experiment Station Act of 1887 and the Smith-Lever Act of 1914 left no doubt that the beneficiary of land-grant research and extension was to be agriculture and rural America.

Subsequent acts expanded the base of this concern to include, as stated in the amended Hatch Act of 1955, the development and improvement of the rural home; rural life, and the maximum contribution by agriculture to the welfare of the consumer.

It should not be surprising, therefore, that farmers have been and will continue to be the first concern of our Department and a major concern of the land-grant universities.

Second, and equally important among the beneficiaries of land-grant and USDA research and extension, are consumers of agricultural and forestry products.

To quote from the Hatch Act, "It is the policy of the Congress to promote the efficiency of production; marketing, distribution, and utilization of products of the farm as essential to the health and welfare of our people."

With this type of support from the Congress, the Nation has been blessed with an adequate quantity of high-quality food and fiber.

For many years, food has been the best buy in the family budget, largely because research has developed and extension has helped apply the technology to keep the cost of production down.

Agriculture does a fantastic job of producing food and fiber for an ever larger number of people, and the land-grant system has made an important contribution to it.

In addition, the United States is the world's leading exporter of agricultural products. About one-sixth of the world's agricultural exports are shipped from the United States.

Beneficiaries of research and extension are people everywhere and in all walks of life.

Science-based technology is the primary tool USDA and the land-grant system has developed to improve human welfare. Many kinds of knowledge and services have been created through the research for application to a better quality of life—in human nutrition, in recreation and job-producing activities for nonmetropolitan areas, and in maintaining the quality of the environment. The impact of the technological revolution on our economy and our way of life has been dramatic and pervasive. There are few instances in which the application of research and education has produced such phenomenal results as in agriculture—such abundance for so many.

Agriculture, with its related industries, is the largest employer of workers in the United States. Our agricultural research programs serve—in addition to farmers—members of marketing organizations, transportation services, and all segments of the distribution system. Increased efficiency in the food and fiber system benefits all who consume or use our agricultural products.

Since its beginning, this Nation has needed increasing numbers of doctors, nurses, schoolteachers, lawyers, businessmen, and technical and skilled workers of all types.

Research made it possible for thousands upon thousands of young people to be released from the production of food and fiber to help improve the standard of living of the people of this Nation and those abroad.

This is brought home when you contrast our state of economic development with that of other nations where the necessity of providing food absorbs large portions of their economic activity.

One of the questions to which we are addressing ourselves today is the way the USDA and the land-grant schools are assisting those in rural America who have not shared fully in the technological benefits that have made our agricultural production the envy of the world.

Far too many people in rural America are underemployed, live in poverty, are undernourished, have poor health, and are forced to live in substandard housing.

We know this, and we are not satisfied with the results of our efforts—in the Department and the land-grant universities—to help rural people of all levels as they adjust to increasing technology and other social and economic changes.

I hope that we never will be satisfied. But we are making progress in increasing the effectiveness of our programs directed at helping

rural people and their communities to improve their economic and social position.

The most recent surveys show that the research of the land-grant colleges and the Department is divided about 80 percent on production and marketing problems of agriculture and 20 percent on people and community problems.

The Extension Service effort is divided about 42 percent on production and marketing and 58 percent on people.

Agricultural Extension has been the catalyst for change and progress in individual lives and rural communities for more than 50 years.

This shift in allocation of time and money from agricultural production problems to people programs has been going on for years. Of course, there are always those who feel that it isn't happening fast enough, but this is not reason to condemn all that has been done or which is being done.

For almost a hundred years, agriculture's major objective has been to provide the people of this Nation with abundant, high-quality food and fiber.

Its second objective has been the preservation of soil, land, and water resources. Improving living for the disadvantaged has been an objective of recent years. Much has been done and is now being done.

Nearly 700,000 disadvantaged families—about 2 million persons—have been enrolled in Extension's Expanded Food and Nutrition Education program since it began in 1969. Nonprofessional aides, selected from the communities, help families in their own neighborhoods on a one-to-one basis to achieve better nutrition. This technique is increasing our effectiveness in helping the disadvantaged.

The 4-H program reached nearly 5 million young people during 1971.

Twenty-eight percent of today's 4-H members are from families with incomes below the poverty level; 17 percent are of minority ethnic groups. Today's 4-H projects include such relevant subjects as community development, nutrition, drug abuse, citizenship, and environmental improvement.

Extension State and county staffs cooperate with other agencies and organizations in many ways to reach all the people in rural areas. In addition to programs for farmers and their families, there are programs for migrant workers, low-income blacks, Indians, the handicapped, and for the senior citizens. The education of these groups ranges from improving and developing new skills to improving health.

The USDA and the land grant universities are the leaders when it comes to improving the economic welfare of rural areas.

In 1970, the land-grant colleges spent only a total of \$3,800,000 from all sources for research related directly to rural development.

In 1971, an additional \$3 million was appropriated by the Congress for this purpose. In 1972, a similar amount was again appropriated and has been requested for 1973. Matching funds from State appropriations and other non-Federal sources have increased the 1972 expenditures on rural development research to about \$10,500,000.

Rural development covers a range of problems, not just one. They must be faced on the basis of the special characteristics of each region or area.

Education and technical economic assistance is essential to increased standard of living in rural areas.

Research provides the base for education and technical assistance.

We welcome the growing role of the 1890 institutions in our research and extension programs. For too long these colleges and universities have shared only nominally in the great traditions of our system. Their ability to contribute to the solution of rural and agricultural problems has been enhanced by recent appropriations from Congress, but their needs for further support are still great.

Their research proposals and their new extension projects show substantial interest and concern for problems of disadvantaged people.

The professional staffs of these institutions, because of their own ethnic backgrounds, can frequently relate more closely with minority people than other educators. This sensitivity to problems of the disadvantaged, and an acceptance by the minority population should help them to reach solutions to these problems more rapidly.

The trained staffs and facilities of these institutions will take a significant place in solving pressing national problems such as rural poverty, substandard housing, poor nutrition, and others included in the challenge of rural development.

They are also able to contribute to the solution of problems in crop and livestock production. Their potential to produce as important educational centers needs to be unshackled and turned loose.

One of the outstanding features of the USDA land grant system is the opportunity it affords for the cooperation of individuals, communities, government, and industry at all levels.

Formally organized advisory committees represent only the "tip of the iceberg" of the body of people who determine the course of research at any one institution. Researchers have continuing contact with individual citizens, farmers, farm laborers, homemakers, and business and professional people that assure a responsive system.

Even though the system has been extremely effective in helping to assure that the public interests are served, we see the need for changes in the public advisory committee system at the national level. Our basic organization is the National Agricultural Research Advisory Committee (NARAC).

This was established by statute. Under this committee, we formerly had a series of research advisory committees according to commodities. Because we felt a more effective system could be developed, we discontinued the committees in 1970 and tried inviting the public to express their views at regional workshops. The public did respond to our invitations as we had hoped. However, we still are not satisfied with the extent of public participation in these workshops.

Therefore, we are now trying to develop other procedures for advisory committees that will provide us public advice from a broad spectrum of people interested in and affected by our research and extension programs.

It would be difficult to identify any complex in the American society which has developed a system that is more effective in fulfilling its obligations to inform the public more thoroughly and more quickly than the USDA land grant system.

Through teaching, extension meetings, publications of all sorts, radio, television, newspapers, and magazines, information is rapidly disseminated to the public.

Finally, in regard to public accountability, the single most important factor to consider from the Federal viewpoint is that the land grant units are largely autonomous and State-controlled.

Established State and institutional procedures and policies, including audit, vary considerably. It is impractical as well as unwise to impose uniform Federal audit requirements beyond those which now exist. With many Federal agencies vying for use of university resources, the lead agency concept has been adopted to minimize the number of reviews and audits on campuses. The Department has worked with other Federal agencies and the institutions for many years to develop current accounting procedures.

Simplification is continually being sought to reduce administrative costs while maintaining essential overview.

Insofar as possible, and conforming to executive policy, the Department has shifted more responsibility for compliance to the State and their institutions. With the bulk of funding coming through State legislatures, the land grant units appropriately must render accountability primarily to those bodies as well as the local interests they serve.

That concludes my statement, Mr. Chairman. My colleagues and I will be glad to answer questions that the committee may wish to ask.

Senator STEVENSON. Thank you, Mr. Secretary.

On page 2 you say that people everywhere in all walks of life benefit from research and extension programs.

Could you give us some specific examples of ways in which farm workers benefit from land-grant college activities?

Secretary BUTZ. We have worked on housing for migratory workers, programs for farmworkers, and we have the nutritional program that reaches farmworkers.

The 4-H programs reach farmworkers to train the youngsters.

As a matter of fact, the entire research program in agriculture is of benefit to farmworkers.

Senator STEVENSON. I did not hear your last comment.

Secretary BUTZ. The entire research program in agriculture is of benefit to farmworkers, and I know one of the thrusts of the program is for the benefit of farmworkers.

The book, "Hard Tomatoes, Hard Times," states that the research has helped to eliminate farmwork. It has also tended to eliminate stoop labor, and it has tended to eliminate much of the drudgery which your father and my father and grandfathers had in their days.

It has tended to take up much of the back-breaking toil that used to be in agriculture.

It has enabled farmers to pay their workers a more substantial wage than they could a generation ago before the research was done.

You and I lived in a time when a top wage for farmworkers was 30 cents per hour.

When I was a youngster, farmworkers used to get \$15 and \$20 and their keep for the week. That was all farmers could afford to pay.

All you had to sell was human energy and human labor, and that was on a pretty cheap market. Research itself has enabled the farmer

to much more nearly pay farmworkers higher wages than he could a generation ago.

Senator STEVENSON. One of the concerns is that land-grant college research activities produce the mechanization, which, for example, does eliminate stoop labor, it eliminates labor, and it eliminates the farmworker.

Secretary BUTZ. Yes, sir, Mr. Chairman, I think that is right.

A basic question is what kind of America do you want. Again, as nearly as I can tell from reading this book, "Hard Tomatoes, Hard Times," the basic thesis is that there is something good in having a large number of people on relatively small farm units in the country. I do not accept that thesis.

I know people will criticize me for this statement. The question is how far do you want to go in that regard. Do you want to go as far as India, where they have 85 percent of the people on the land, and a person cannot afford anything.

Do you want to have it as it is in Russia, where 45 percent of the people are on the land, where a person cannot afford the things that we take for granted, where it takes half of the resources to do the elemental job of feeding the rest of the people.

Mr. Chairman, when I was born, 35 percent of our people were on the farm, and in those days if we had automobiles, radio, central heating, running water in the homes, and all of the things that make up America, it was unusual. We could not afford it because we had to have the population out in the field, and modern American affluence is possible only because we have had this revolution in American agriculture. I challenge very vigorously the basic thesis of this book, and I will resist to the end any effort to hide unemployed people and have underemployed people on the farms of America.

That does not mean we are opposed to the family farm.

The family farm is a vigorous, alive growing concern in this country, but I want a family farm big enough and able to grow and provide a decent living for the farm family.

Senator STEVENSON. You can put different interpretations on the facts, but the fact is some 800,000 people a year leave rural America and go to our congested cities.

Secretary BUTZ. Yes; that is true.

Senator STEVENSON. And many are underemployed there, some 14 million people are underemployed. And, it has gotten to the point where you cannot go into farming anymore.

If you happen to inherit the land, you cannot purchase the equipment unless you are wealthy and have access to the credit that is necessary. Not too many family farmers have the credit with which to buy the mechanization that has been developed at taxpayer expense largely through land-grant colleges.

I dislike having to go off on these philosophical questions, but I think they are very serious questions.

Secretary BUTZ. I do, too. I think the premise is entirely inaccurate. Let's take your own farm, Mr. Chairman.

You have a farm. May I ask you a question?

Can I reverse the order of questioning for a moment?

May I ask you a question?

Senator STEVENSON. Yes.

Secretary BUTZ. Let's take your own farm in Illinois, which has been in your family for generations.

You have a farm in McLean County, Ill., the old Stevenson farm, that I know of.

How many fewer people work on that now than did 40 years ago?

Senator STEVENSON. Forty years ago—

Secretary BUTZ. How many fewer people are now working on that farm than 40 years ago?

Senator STEVENSON. It used to be three families. Now it is one family. As a matter of fact, no family lives there.

Secretary BUTZ. Were you antisocial in displacing two families from that farm?

Senator STEVENSON. I did not do it.

Secretary BUTZ. But you went along with it. The question is, were you antisocial in letting two families go from the farm?

Senator STEVENSON. I do not think you are antisocial, but I think—

Secretary BUTZ. Well, you put two families out of work.

Senator STEVENSON. The people who lived there lived very good lives some years ago.

What has happened to them, to their children, I don't know.

I suppose some of them are unemployed. Some of them I suppose are in the cities, maybe some are not.

Secretary BUTZ. If you brought two back and divided the work among the three families, what would happen to the standard of living?

You could not do it now.

Senator STEVENSON. Yes; you could not do it now.

Secretary BUTZ. That is the point. I think the philosophy that undergirds this book is that there is something inherently good about having a large number of partially employed or underemployed people hidden on the land.

Senator STEVENSON. That is not what I got from that book, or from your example.

What we are attempting to learn is whether the Government deliberately through its policies, whether they be policies of the land-grant colleges, or crop subsidy programs, or tax policies, is making it difficult for the most efficient producers in our whole economy to survive and to compete.

I think you have said it yourself, the family farm unit is probably the most efficient producer in our whole economy, and yet because of disadvantages, possibly created by Government policies, it has a very difficult time in this day and age, and has had for a long time.

Secretary BUTZ. Of course, the family farm is not going out of existence, Mr. Chairman.

Along that line, I just asked our people for some data on the distribution of all farms compared with corporate farms. This book makes a great deal about the tie between the land-grant colleges and the corporation. It gives the inference at least, if not the statement, that land-grant colleges do not serve the family farm. I welcome the chance to testify here because I have spent my life in these institutions. I know from firsthand experience, land-grant colleges do serve family farms.

There may be some truth in the allegation that they give more service to the better farmers than to the lower income farmers. I suspect that is true. It may be a shortcoming of the system, but to say that they do not serve family farmers is to ignore the truth.

Senator STEVENSON. I was asking you, Mr. Secretary, about farmworkers, as opposed to the family farmers, and I was going to ask you next if you had read a statement of Dr. Bayley that "research programs in the problems of farmworkers have been notoriously feeble in proportion to the need." The statement refers to a speech of Dr. Bayley's of September 1969, printed in full elsewhere in this record.

Is it not true for every dollar spent on farm labor, over \$20 is spent on research for machines which displace the worker?

Secretary BUTZ. Research programs on farm workers are feeble in proportion to need. That is correct. I may say also that the Department of Labor has an important training program going forward in training for displaced farmworkers, as do the land-grant colleges.

As a matter of fact, many of the people who take agriculture in land-grant colleges use education as a means of moving from the farm into an agriculture-related business.

If dad had three sons, take your own family farm, there is just room on that farm for one of them. What do the other two do?

I think one of the best avenues is to say in the agricultural business. They become part of the agricultural complex. Let me say here that I frankly disagree vigorously with the implication made in this book that there is something antifarmer about agribusiness.

This is a very essential part of modern agriculture. The steer being fattened in an Iowa feedlot has no value until he is in a roast in a Philadelphia home. The beef is without value until it is in the market. The hog being grown on an Indiana farm is without value until it is a pork chop in some meat counter, and that is one of the essential features of agribusiness. Anybody who says one is set against the other, again, I say, is not conversant with the facts.

It is a very essential part of agriculture, and I am delighted to see our farm boys go into that kind of business.

This note has been handed to me about farmworkers having been denied jobs. Many of them are now being retrained in agribusiness, and new jobs are found for them.

Among other things, Extension plays a key role in training and education, and there is a pilot program in a number of States aimed at increasing employee skills which will help eliminate unemployment.

In 1971, Extension assisted more than 1,500 manpower training programs and helped 1,300 groups interested in manpower development.

Again, the Department of Agriculture and the Department of Labor are making a real thrust to help these people.

We have helped through the years.

Senator STEVENSON. You have testified, Mr. Secretary, that the National Agricultural Research Advisory Committee was created by USDA, that part of this is concerned about the welfare of the family farmer and the farmworker.

Why is it, if it is true, that there are no family farmers or farmworkers represented on that committee?

Secretary BUTZ. Well, again, I am not familiar at the moment with the exact composition of that committee. This was constituted before I came here. The committee is representative of the research, but we do have family farmers represented.

Senator STEVENSON. I am told there are three farmers on it, one with a thousand acres, one with 1,400 acres, and the other with 400 acres.

Secretary BUTZ. I do not have the composition.

Senator STEVENSON. There are no farmworkers on the committee.

Also you say that you are concerned about the consumer, yet we have heard from the executive director of the National Consumers League of how consumers are being hurt by land-grant college activities.

Secretary BUTZ. How?

Senator STEVENSON. Why is there no consumer representative on the National Agricultural Research Advisory Committee?

Secretary BUTZ. How are consumers hurt?

Senator STEVENSON. Basically, the argument is that the research of the land-grant college complex leads to an ever greater use of both mechanization and chemicals in agriculture, particularly in fruits and vegetables. For example, the hard tomato is developed so that it can be picked by a machine, and then they are colored artificially by gasses. Oftentimes use of chemicals through the entire food chain leads to unhealthy food.

Secretary BUTZ. Is that statement backed by research, or simply an allegation of a witness?

Senator STEVENSON. I think in some cases it is indisputable, and in other cases it is probably an exaggeration.

I don't know exactly where the truth lies, but one of the points made is that much of the emphasis on land-grant colleges is not on the nutritional value of food, but rather is on the appearance of food.

Oftentimes, the attractive appearing food is the more expensive, or the less nutritious or tasty food.

In fact, this raises a question concerning the activities of the Agriculture Department, since the land-grant colleges are designed for the welfare of rural America, farmers, farmworkers, and the consumer.

How do Government subsidized research activities designed to improve the appearance of food benefit anybody?

Don't they just really increase the profits of processors?

Secretary BUTZ. No, sir.

First, let me answer your question about the land-grant colleges being injurious to the consumer.

I think nothing is farther from the truth and from reality than that.

The American consumer this year is going to get his food supply with everything in it—with all of the built-in maid service, and with a third of the meals eaten outside of the home. With all of that, he is going to get his food supply with 15.6 percent of his disposable income.

That compares with 23 percent, years ago, of his income. That compares with 45 percent in Russia; in China it is 75 percent.

At no time did the American consumer ever buy his food stuffs for so small a share of his disposable income, and get such good food as now.

Let us examine some of the rest of the allegations as to the use of chemicals.

We do use a lot of chemicals in agriculture. We use poisons; there is no doubt about it. They are dangerous. When I become ill and go to my physician, he prescribes poisons for me. He has a carefully prescribed set of rules under which I take them, and I follow those rules.

It is the same way with agriculture; we have a carefully prescribed set of regulations under which to function.

Now, the use of DES, which if discontinued, would cause the price of beef to go up above current prices. I guess when that happens, consumers will wonder who is being hurt.

It is true we have some research that does improve the attractiveness of food.

That is obviously an effort to help our farmers, and to help consumers too, to move attractive foods into consumption.

We want them to be attractive, and they are attractive.

You mentioned hard tomatoes as a case in point, and that is the title of this book here.

We do use chemicals in the production of tomatoes. I understand later you are going to have some testimony from people at the University of Florida about hard tomatoes, and I do not want to get into it. But the truth is that you simply cannot get stoop labor in the quantity needed to harvest tomatoes by hand, as we used to; get stoop labor in that quantity anymore, people will not do that kind of labor anymore.

You are forced to mechanize. If you had to have that kind of labor to get the job done, the price of tomatoes would be substantially higher, and consumption would go down.

I simply cannot accept the statement from anybody, that the work of land-grant colleges has been injurious to consumers.

As a matter of fact, our tomatoes are the best in the world and the cheapest in the world because of the work of the land-grant colleges.

Senator STEVENSON. With regard to the availability of labor, it is my strong impression, after going out to some of the States, that there is plenty of labor to work on our fruit and vegetable farms.

In fact, there is a surplus of farm labor. I do not have the figures on it, but I would be surprised if the cost of that farm labor was any higher than the cost of that mechanized tomato picker, and even if that were—

Secretary BUTZ. Yes; it is substantially higher.

Senator STEVENSON. Even if that were so, Mr. Secretary, you tell me what percentage of the consumer cost per quart of tomatoes goes to farm labor, in the case of those which were picked by hand; can you tell me that?

Secretary BUTZ. A quart of tomatoes, I cannot answer that.

It would be a higher percentage.

Senator STEVENSON. It is about 1 percent.

Secretary BUTZ. One percent cost of labor?

Senator STEVENSON. Farm labor. Even if your total production cost went up 50 percent, farm labor costs would go to 1½ percent.

Secretary BUTZ. I suspect if we picked them all by hand, it would be substantially higher than that.

Mr. Chairman, I was in California, just last week, where they use large quantities of labor in handling melons and strawberries, and I was in the area where a good deal of production is faced with the problem of those crops that are grown south of the border. And, as you know, it constitutes a problem partly at least because of the difficulty of getting labor to do those things you cannot mechanize, like for strawberries.

Senator STEVENSON. Dr. Bayley has also estimated "that 57 percent of all farmers derived little or no benefit from agricultural research."

You have testified that 20 cents of each research dollar goes to what you would call people programs.

If two-thirds of all farmers are not benefiting from research, is not 20 cents much too small a fraction for people programs?

Secretary BUTZ. Knowing Dr. Bayley, I do not believe he made that statement.

Dr. Bayley, did you make that statement?

I have the author here.

Dr. BAYLEY. I never said that. If I made that statement, you should talk to me. It is obviously an extreme interpretation of a speech I made in which we are trying to emphasize the need for some of our people research.

My statement was not that extreme.

Secretary BUTZ. I will not talk to you anymore about it, Dr. Bayley.

Senator STEVENSON. How do you draw that line between the people programs and the other programs?

I am not sure how any such line could be delineated, and you yourself suggested that everybody benefits from all of this research.

Secretary BUTZ. Well, of course, I asked that same question about how they drew the line in the book.

They drew a line there which alleges that we serve a small proportion of the farmers with our people programs.

I will ask Dr. Bayley to comment on that.

Dr. BAYLEY. I think the important thing is to recognize that the people research as defined in the book has been narrowly construed to be those things, based on the project titles, which directly affect a person's health, et cetera.

I think you have to realize that research which helps people is much broader than that.

I noticed there was some ridiculing of research which would help recreational activities.

This is really an opportunity to provide additional jobs in rural America, and there is no sense in ridiculing this type of research as not being people oriented.

When we start getting into the development of new jobs for people in rural America, and we get into the development of—

Senator STEVENSON. How are jobs being developed for displaced farmers and farmworkers?

Dr. BAYLEY. The characteristic of this research is about twofold.

First of all, in rural development, we have the broad generalized research, to give us the trends, to tell us what is going on in rural America.

That is part of it, but perhaps the most important part is that done right out there at what we call the grassroots level.

This is an analysis of the job opportunities for a specific area.

These are feasibility studies made to assist communities in making their decisions about how they can improve their own standards of living.

It was mentioned in the Secretary's testimony, that this level of research has gone up considerably since 1971.

There have been more than 300 new projects developed in this research area. A good deal of this is directed at analyzing job opportunities, analyzing opportunities at the local level where people can make decisions in rural America about how to improve themselves—

Senator STEVENSON. You still have not answered my question which is not how diminishing job opportunities are analyzed, but how they are created through research.

The strong impression that I have on the basis of these hearings which have gone on for months now, is that jobs are being eliminated by mechanization in agriculture, which is a very large end result of land-grant colleges research.

I see no evidence yet of any effort on the part of land-grant colleges to create jobs or really in other ways to benefit those displaced by mechanization, and I do not think you have cited an example to me yet of such a project.

Secretary Butz. Let me respond to that.

As part of their participation in rural development, I think you will agree with me one of the great tragedies in the last dozen years was this mass migration of tens of thousands of people from rural America to the city.

We now have before the Congress a bill—the conference committee has reported out—which puts real teeth and real substance behind an effort to develop rural America.

The land-grant colleges for some years have been working to develop rural America. They have assigned personnel to help with the 4-H projects, where they take youngsters and teach them jobs.

Now, in a massive effort, the Federal Government, with various departments will combine with the land-grant colleges to create incentive labor using small businesses in rural communities to keep these people in the rural communities and to provide training programs to put them to work in that kind of business.

I was just recently down to North Carolina, and I spoke at a meeting there where they have done great work in western North Carolina. They are bringing small industry into those communities so that the communities are growing, new houses are going up, and jobs have increased, and that is the kind of thing I am talking about, and I may say that the North Carolina State University has helped a great deal in this effort.

Senator STEVENSON. Dr. Butz, the kind of example I am getting at happens to be at North Carolina State. That land-grant college helped to develop a mechanical tobacco picker, and it is estimated in the next 6 years that that one machine will displace 150,000 families.

Those families are going to end up in our already overcrowded cities. They are going to end up on welfare.

What single effort is being made throughout the whole land-grant college complex to help those 150,000 families?

Secretary Butz. I think I just said that it is those developments, that is, this whole rural development effort to make the rural communities attractive and to attract capital.

The Farmers Home Administration will be equipped to make loans for community facilities, and to insure loans that local institutions will make to help bring the intensive labor industries into the communities, and this is being done.

I just cited these illustrations. This illustrates what I saw 2 weeks ago, and it is a tremendous success story.

What is the alternative?

You are talking about a machine that will displace so many workers. At the present time, North Carolina has a very high proportion of rural population, and I might say they have a very high proportion of low-income farms. This simply must be changed, and it is simply a mathematical fact you cannot raise the income of these people to a satisfactory level which will keep them all in farming.

I think that statement is so obvious it is axiomatic. The question is what do you do with them. I just saw a fine example of that taking place, where North Carolina State is indeed cooperating in getting that job done.

I would like your committee to go down and take a look at that. It is on the other side of the spectrum, and it is a tremendous success story.

Senator STEVENSON. Let me cite you another problem that concerns this subcommittee.

I think you would agree that in the broiler industry, vertical integration destroyed the independence of many small poultry farmers without bringing about substantial improvement in their financial position, and in fact, agribusinesses, such as Ralston Purina, which got into the poultry business, were not successful either. Is that true?

Secretary Butz. Some of them have not been successful.

Some have divested themselves of very substantial investments that they had in this, and I might say that so far as broilers are concerned, the substantial share was taken over by local groups and by cooperatives in some cases. But to come back to the broiler industry, this has been an industry of low returns during the last 18 months. The egg industry has been a disastrous industry also these last 18 months. This is chiefly because of the result of a vaccine which has prolonged the life of the hens. It has taken some time to adjust to that on the supply side, but the only people that made any money in the egg and poultry industry in the last 18 months have been the farmers out there who worked under contract.

He got so much per dozen, or so much per pound, and the loss was taken up by the employers, and a lot of them took very substantial losses.

Senator STEVENSON. We heard from some pretty unhappy contract farmers.

Secretary Butz. They are the only ones who made any money in the last 18 months in this business.

Senator STEVENSON. The point is that vertical integration in the broiler industry was apparently unsuccessful, so why does USDA fund research to achieve vertical integration in other agricultural industries; hogs, for example?

Secretary BUTZ. What evidence do you have that we have funded research to achieve vertical integration in that industry?

Senator STEVENSON. I am told the purpose of recent hog research is to achieve vertical integration.

Secretary BUTZ. Can you answer that, Dr. Bayley; are you aware of that?

Dr. BAYLEY. If so, that is not research.

Research is to evaluate different procedures, not to achieve.

Secretary BUTZ. Do we have any problems, Mr. Kirby, in achieving vertical integration?

Mr. KIRBY. Not as the objective.

Secretary BUTZ. Mr. Chairman, I am completely unaware of any such objectives.

Senator STEVENSON. You say you have research programs to evaluate?

Secretary BUTZ. To evaluate; yes. To achieve is something else.

Senator STEVENSON. Well, I just do not understand what the purpose of investing those public dollars is in the evaluation of vertical integration of one of these industries.

Is not the only beneficiary of that information going to be agribusiness?

Secretary BUTZ. No, sir.

Conceivably, if this committee wanted to use information like that, it would find it interesting in its own deliberations.

If you tried to evaluate social trends and economic trends—and trends like this are always taking place—you need that information.

We have a factual basis for evaluation, and a factual evaluation can be made only on the basis of factual research.

Senator STEVENSON. Mr. Secretary, we are very pleased that in your statement you recognized the potential service of the colleges of 1890 in rural America.

You have also stated that "for too long these colleges have shared only nominally in the great traditions of our system."

Is it not true that they have shared only nominally because they have been the victims of systematic racial discrimination, largely at the State level, and, if so, what, if anything, is the USDA doing to eliminate discrimination against the so-called black land-grant colleges?

Secretary BUTZ. Mr. Chairman, first let me state that my own experience has been in Indiana, where there has not been a problem, and I agree with you that for too long we have not utilized the expertise available in those colleges.

We are moving vigorously on this.

I made inquiry into this to see how far back the Department changed its stand on the matter. In 1967, Orville Freeman was Secretary of Agriculture. The Secretary's budget request to the Congress was for \$970,000. It was really for a million dollars, with \$30,000 offered for administrative purposes to go to the 17 colleges.

The Congress appropriated nothing in that year, but I want the record to show that in 1967 the Department of Agriculture requested a million dollars for this purpose and got zero.

In 1970, when this administration came in, there was a request for \$150,000, and the Department got \$150,000. But let me go back to 1967.

Even though we got nothing that year, the Department of Agriculture took \$283,000 out of \$2 million of general grant funds and specified that they go to the 1890 colleges; so the Department of Agriculture took the initiative, even though the Congress did not see fit to give us any support.

In 1970, the President's budget asked for the \$150,000, and they got it.

In 1971, the President's budget asked for \$750,000 additional, and they got nothing additional.

In the current year, the President's budget asked for \$4 million, and the Congress gave \$12.6 million.

In addition, we are making substantial research grants to those colleges.

I agree the initiation of the support has been entirely too late. These institutions have good expertise, and I think they have the personnel with the rapport with the low-income people, with the ethnic minority groups in the south, and too late we are using that, but we are making very substantial steps. The point I want to make here is that the Department has requested this and the Congress was not willing to grant it.

Senator STEVENSON. The complaint is still made that the distribution of funds, as between the 17 black schools, and the so-called white schools, discriminates against the former, and in violation of title VI of the Civil Rights Act of 1964.

Has USDA ever made any effort to require compliance at the State level with title VI of the Civil Rights Act?

Secretary Buttz. Oh, yes, indeed.

First, let me say, we have not gone far enough and I will not be satisfied until we get equality, but at least we are making substantial progress.

Can you speak to that?

Dr. BAXLEY. We recently released an affirmative action plan for meeting nondiscriminatory legal standards in employment and in all programs by State and cooperative extension services.

The plan requires each State cooperative extension service at the county level to evaluate the current level of programming and services of educational programs to minorities and low-income clientele groups in agriculture, community resource development, home economics, and 4-H development.

In any program or element of a program in which there appears to be a disparity between the number of actual participants in relation to the number of potential participants, plans are called for to reduce this disparity.

Similarly, any process applied in management of the program which has the effect of limiting or excluding persons from participation must be modified, removed, and/or new methods applied.

This includes consideration of social inhibitors and economic barriers which are significant to the motivation of those which are protected.

This is the affirmative action plan which we initiated last February, and which is now in the process of being carried out.

Secretary Buttz. Along that very line, Mr. Chairman, we have participation of minority groups on our State ASCS committees where

we did not have proper representation, and we rectified that pretty well at the State level.

The county committees are elected by county people, and we have a minority man, a black member of our staff, whose job it is to work in the Southern States to encourage participation of minority groups, especially black groups, in county ASCS elections to give representation to the county committees.

We are aggressively working on that.

Senator STEVENSON. Mr. Secretary, I would like to conclude by making one specific request of you, that you consider appointing family farmers, farm workers and representatives of consumers to the National Agricultural Research Advisory Committee.

Secretary Butz. We will do that. This committee is always being changed, as you well know.

Thank you very much, Mr. Chairman.

Senator STEVENSON. I understand Senator Chiles is present to introduce the next witness.

Welcome to our subcommittee hearings, Senator.

STATEMENT OF HON. LAWTON CHILES, A U.S. SENATOR FROM THE STATE OF FLORIDA

Senator CHILES. Thank you, Mr. Chairman.

I have the pleasure of introducing the witness, Dr. E. T. York, vice president for agricultural affairs of the University of Florida.

Prior to my introduction, I would like to say I think that the work that you are doing, Mr. Chairman, on this subcommittee, will be very beneficial to look into the land grant colleges, and the job that they are doing.

I am sure that the committee has gone into that with an open mind, completely open minded basis, and is not using any particular book or references until all of the facts are in, and I think such a study, and such an investigation into the land grant colleges can produce some good results, and can shed some light into an area that would be good, and so I would just like to say that as a former State legislator in the State of Florida for 12 years, prior to that having received two degrees at the University of Florida, I am somewhat familiar with the land grant college of the University of Florida, and some of the work that was done, and also the reputation that it has among the people in Florida, small farmers, big farmers, people in agriculture across the board, as well as I think the consuming public.

The University of Florida has a series of agricultural experiment stations, that are stationed around Florida, that work in different areas.

One of which I am particularly knowledgeable and interested in is the one that deals with citrus, that is located in my county, in Polk County, and some of the research and the work they have done in developing root stocks that are resistant to certain insects and parasites that we have had that were threatening the entire citrus industry, and in trying to have root stocks that can be resistant to freeze and cold, and trying to develop many different varieties of fruit that would come at different times of the market. Generally the grove owners in Florida, who run the gambit from the person who has 3 or 4

acres of grove to some that have many hundreds of acres of grove, have benefited tremendously from the work and research that has been done by the agricultural experiment station in that area.

In addition to this, one of the other examples that is perhaps always in the minds of many people in Florida is the eradication of the screw worm that is a direct result of the work done through the Florida experiment stations, and the University of Florida. We found that almost all of our cattle as well as some of our deer and other animals were infected by the screw worm, which was damaging the production of beef and dairy herds.

They found out that through radiation, they could sterilize the male fly, and then release him, and in turn that brought about an eradication of the screw worm entirely. Since that time we have had a flourishing cattle industry, and that has been of tremendous benefit to the person that has four head of cattle, and the person who has many large herds.

I can say that the reputation of the University of Florida, and of the agricultural experiment stations, according to all of the farm groups in Florida, is of the very highest nature.

They have been continually engaged in research, and some of it has been for labor-saving devices.

We do not criticize General Motors because they come up with an assembly line, or they automate their plant, because of the great demand for reducing costs to do that, and yet Florida among other States, is constantly under pressure, for example, in tomatoes and strawberries, and winter vegetables to save labor. We are almost to the wall with fruit that comes in from Mexico, where they have virtually a year-round harvest season now, and every time we do something to raise the minimum wage which we are all for, we tremendously increase the burden on the farms and on farm production, and yet no one wants to put marketing quotas on the importation of Mexican fruit.

Mexico says themselves, we are one of your best customers, and we have a negative balance of trade, how can you consider putting any kind of quota on us, and at the same time with their much reduced labor costs, and their longer growing season, and their generally reduced costs, they are able to come into the market at a lower dollar rate than Florida can produce with the many seasons of the year, and they are flooding the market with regard to tomatoes and strawberries, and certainly there is a continuous pressure on the part of the grower to try to find any way he can to stay in the market, and to continue to produce his crops.

I understand. I heard your question about something about the yield in what labor is needed to produce crops.

I was looking at some figures that recently crossed my desk, and I see in south Florida, vine-ripe tomatoes, the labor of producing vine-ripe tomatoes per acre is \$629 for the season of 1970-71.

The labor for producing the same vine-ripe tomatoes in northwest Mexico is \$116.

The harvesting cost in Florida for 1971 is 65 cents per box per flat, and the harvesting cost in Mexico is 18 cents per box per flat.

Now, that labor cost is \$629 per acre. A total cost of producing that crop is very high, so the labor cost makes up almost one-third of the

total producing cost—according to my figures, \$1,695 per acre—that is one-third going to labor, and that is true in cucumbers, tomatoes, strawberries, right across the line in these particular things.

It is, as I say, applying pressure to have the opportunity to introduce devices to lower this.

It is a pleasure, Mr. Chairman, to introduce to your committee today Dr. E. T. York, vice president for agricultural affairs, for the University of Florida, and he has done an outstanding job there at the University of Florida, and he as well has helped us in heading our agricultural experiment stations, as well as our School of Agriculture, and our Florida Institute of Agricultural Services.

Senator STEVENSON. Thank you, Senator Chiles.

Let me just say that I appreciate very much your appearance here today.

You are a member of the Agricultural Committee of the Senate, and on that committee, and in many other ways, you have demonstrated, not only expert knowledge, but real concern for the welfare of farmers and farmworkers alike. I want to assure you that we do intend on this subcommittee to get a balanced picture of some of the problems that we have undertaken to examine.

Those problems go way beyond the activities of land-grant colleges. This is just the subject of the current hearing which is a long series of hearings which have been addressed to the plight of farmworkers, farmers, and the continuing outmigration from rural America.

Some 3.7 million farms have closed down just since World War II.

For every seven family farms that go out of business, it is estimated one small business in town closes its doors. What we are finding in the course of these hearings is that this continuing migration from rural America to urban America, leaving behind a dehumanized rural America, adding to the dehumanization of life in our cities, may be partly the result of governmental policies?

Senator CHILES. I think very definitely, Mr. Chairman, it is the result of governmental policies, and I am delighted that this committee as well as many other committees of the Congress is finally beginning to look at that, and realize much of what we thought we could do with dollars, and saw the problems of the cities could never be solved, until we could stop the migration, and in order to stop the migration, then we must do something for rural America.

As the Secretary said, we have recently completed work in the conference committee, that is, the committee of the two Houses, on the rural redevelopment bill, which I think is a major piece of legislation, in which Congress is going to get a chance to say that a public policy is going to change now, and we are going to actually try to do something about rural America, and try to make life more livable there, to provide more money so that people can buy homes, provide the incentives so that industry can locate, where it properly could locate in those areas, and many, many other things that will take a reversal of Government policy.

Senator STEVENSON. We want farming to remain a way of life in this country, too.

You talk about mechanization and labor-saving devices, and that gets us back to the land grant college research activities.

I would like to see labor-saving devices developed, and perhaps some have been for small farmers as well as agribusiness corporations.

That is the kind of thing we are concerned about. You mentioned biological insect control. That seems to me one of the really useful activities being undertaken in land-grant colleges now.

It is an environmentally safe way of controlling pesticides.

I am very glad to hear that the University of Florida has been active in developing new forms of biological insect control.

This is developing into a long introduction of Dr. York, but I do thank you again, Senator Chiles, for coming here today, and also for your continuing concern and interest in conditions of rural America.

Senator CHILES. Thank you, Mr. Chairman. Now, I present to you Dr. York.

Senator STEVENSON. Dr. York, a roll-call vote on the Senate floor is in progress. I will have to recess this hearing for as long as it takes me to get to the floor to vote and return.

I will be back in about 5 minutes.

(Whereupon, the hearing was recessed.)

AFTER RECESS

Senator STEVENSON. The subcommittee will come to order.
Please proceed, Dr. York.

STATEMENT OF DR. E. T. YORK, VICE PRESIDENT FOR AGRICULTURAL AFFAIRS, UNIVERSITY OF FLORIDA, GAINESVILLE, FLA.

Dr. YORK. Thank you very much, Mr. Chairman.

I would like first of all to thank Senator Chiles for the very gracious introduction at this hearing.

I want to express my sincere appreciation to you, Mr. Chairman, for the opportunity to appear before your committee. I would like to comment on this publication, "Hard Tomatoes, Hard Times," and in so doing, to comment on what one land-grant university is doing. Of course, we in Florida have a very special interest in this report, because the term "hard tomatoes" in the title refers to a variety of tomatoes developed by the Institute of Food and Agricultural Sciences of the University of Florida.

I am sure you agree, Mr. Chairman, no one would have thought by looking at this rather innocent little vegetable that this could have generated so much national attention and even notoriety as this tomato has in the last few weeks since the publication of this report. In view of this, Mr. Chairman, we would like for you and other members of your committee, to have some firsthand knowledge of this tomato.

Indeed, we have some samples here that we would like to present to you, and if you would care, you might want to share them with other members of your committee.

I hope you will take them home with you, and have your family try them also.

We have some of these lovely ladies to distribute some samples, if you would like to sample one.

Senator STEVENSON. Thank you very much, Dr. York.

Dr. YORK. I have also brought some of these tomatoes for Mr. Hightower. I hope he is here, and that he is willing to try them, because it is quite obvious in their report that those responsible for its preparation have never had previous exposure to this tomato. That is why I bring these to you this morning, and particularly to Mr. Hightower.

Many newspaper articles have referred to the development of bell-shaped tomatoes, which would lend themselves to mechanical harvesting.

I call your attention to the fact that these are nice round tomatoes, as I am sure that nature, according to Mr. Hightower, intended the tomato to be.

The reference to bell-shaped tomatoes apparently came from a variety of tomatoes developed in California some 10 years ago; it received much publicity. I remember one story in the Reader's Digest, indicating it was developed for mechanical harvesting.

The California tomato was developed for processing, whereas this tomato is developed for the fresh market, and there is no relationship between these Florida and California tomatoes. Despite the assumption, the writer apparently had never seen the Florida product.

Throughout the report, the writers emphasized that land-grant colleges assumed a consumer-be-damned attitude, being only concerned with helping agribusiness and big corporate farms.

This is their major premise. They cite the development of the MH-1 tomato as evidence of this, and suggest while it may be good for mechanical harvesting, it is too tough for the consumer.

Actually, nothing could be farther from the truth. Many consider the MH-1 tomato to have the best eating quality of any tomato produced in Florida today or at anytime in the past.

In fact, some consumer preference tests have indicated it to be the highest quality Florida tomato available today.

In one supermarket evaluation of consumer preference, the MH-1 was selected three to one over other tomato varieties that were available.

Although this is the first year of any volume production, and there has not been sufficient production to have any great impact on the total market, wholesale buyers have been willing to pay a premium for this variety, because of its high quality and acceptance by the consumer.

I would say here, Mr. Chairman, the very idea that a producer would choose to grow a product not acceptable to the consumer is grossly irrational.

I have here a copy of a letter from Mr. A. C. Powell, who describes himself as head of a processing and sales organization, and says that he handles tomatoes for 13 relatively small farmers.

He says that all of his tomatoes are staked, and, therefore, must be handpicked, and he cites his evaluation of the MH-1. He says, to sum it up, "the MH-1 is the finest tomato that we have ever seen."

He is a marketing man. One must look at what the consumer wants. He adds, "this is what our customers tell us, not just our opinion."

I have cited in my text, Mr. Chairman, many of the characteristics of this tomato, which contribute to its high quality, but one of these is the fact it has greater resistance to disease than any other tomato.

that we grow in Florida, which means producers do not have to use as many pesticides for disease control on this tomato as they do on most other tomatoes.

I would point out that although the MH-1 has a potential for mechanical harvesting, 100 percent of the commercial tomato acreage in Florida is at the present time hand picked.

Consequently, the variety is well suited to hand harvest as well as having a potential for machine harvest.

In fact, the MH-1 is preferred by farm laborers over conventional varieties as it is much easier and more profitable to pick by hand. The laborer can pick more than twice as many fruit as with conventional varieties.

The special harvesting techniques which have been developed by the university are designed to utilize present labor under much more improved working conditions.

The harvester referred to is really a semiharvester, which is more of a device to eliminate much of the stoop labor, but still requires considerable labor in terms of processing materials that are handled through the machine.

The report implies that there is something undesirable in the use of ethylene gas to hasten the ripening of tomatoes which may have been picked mature-green.

As a matter of fact, ethylene gas is a natural product, released in the ripening process of many fruits and vegetables and has been used under controlled conditions for the purpose of speeding up the natural ripening process of numerous fruits and vegetables.

There is absolutely nothing harmful about the use of ethylene gas. Actually the MH-1 requires the use of less ethylene gas than most other varieties which are picked green because the firmness of the MH-1 enables the tomato to be picked at later maturity dates.

In fact, many MH-1 tomatoes are being marketed without the use of any ethylene gas in the ripening process.

Indeed, this variety, because of its superior shipping and keeping qualities, may be the first major market tomato which can be harvested and sold by the producer in a red ripe condition.

Yesterday afternoon, Mr. Chairman, I went around to the grocery store, right around the corner from the hotel I am staying at here in Washington. They did not have many tomatoes on the shelf, but they had five cartons such as this one here.

Four of these were about in this state. The fifth one had three rotten tomatoes, plus one that seemed to be in fairly good shape.

I paid 50 cents for this. The manager gave this one (the rotten tomatoes) to me, obviously feeling it did not have much of a market potential.

This morning I discovered that one of these in the "good" carton is rotten, when I opened it.

Now, I bring this here to make this sort of comparison. These are hand-harvested tomatoes (the bought ones.)

If you want a hard, tasteless tomato, try this one.

These, Mr. Chairman, are also hand harvested tomatoes (the MH-1) but they have the potential for mechanical harvest, as I have indicated.

My point is that handharvesting does not insure a high-quality prod-

uct. Neither does machine harvesting suggest that the product will be an inferior product. I think you have some very good evidence here. The fact is the MH-1 harvested by hand or by machine is perhaps the highest quality commercial tomato available in this country.

Now, I have spent more time on tomatoes than perhaps the subject warrants, but I do so for a good reason, and I hope it comes through.

Certainly, all of this provides a much different picture of the MH-1 than Mr. Hightower has presented to the American people. And this very erroneous image of the MH-1 tomato is very characteristic of the many aspects of this report.

It indicates very clearly that Mr. Hightower and his staff did not do their homework well.

The report indicates that "research" was conducted in Washington and on several land-grant college campuses, including the University of Florida.

I do not know the nature of the "research" at my institution—but I have yet been unable to find any member of our university community who has ever talked with this group—or, in fact, who has ever heard of them until this report came out. In fact, I had never heard of them until the day before the report came out, when I was contacted by a member of the local press.

They referred to themselves as a research organization; yet, I think it is obvious that their product does not come close to deserving such a label.

The writers have taken material out of context—they have been masterful at times in the use of half-truths—they have completely misrepresented many facts.

The results of all of this is the most biased, distorted, and generally irresponsible piece of writing I have ever seen.

The language of the report insults and belittles the people of the land-grant colleges by referring to them as "soft headed," and "the most rested group you will ever meet."

In many instances the writers use unnecessarily crude and offensive language.

For example, they refer to some of the work of the land-grant colleges in terms of such crude and offensive language, that I would not offend this committee or the audience this morning by even repeating some of that language you will find in the report.

I want to emphasize that I am not suggesting here this morning that there is no basis for criticizing the programs of the land-grant agricultural colleges.

No public institution is immune and all organizations and institutions can benefit by fair, reasonable, and meaningful criticism.

However, to be helpful, such criticism should reflect some degree of objectivity, it should have some relationship to factual situations and need not be crude and offensive.

But aside from the abusive rhetoric, one must conclude that this report could have been written only by people who were both extremely naive and wantonly careless and irresponsible in making broad, generalized conclusions on the basis of a few carefully selected observations, and I would say, a few carefully selected unrepresentative observations.

Mr. Chairman, we have brought together in another document some material which we collected very hurriedly over the past week.

We have had only a few days to prepare for this hearing, and we have brought together documented evidence of programs we are conducting in the university and throughout the State, through the experiment station and Extension Service and how these programs are reaching many of the people that Mr. Hightower and his group have expressed concern about.

The report also includes a few statements supplied by farmers and homemakers, indicating something of what these programs in research and extension have meant to them.

I would emphasize here, I do not want anyone to think these are in any way the result of a statistical random sampling of farmers. However, I would invite this committee or any other group interested in getting the facts, sir, to conduct such a survey, to determine what the people, the users and beneficiaries of these programs think about them.

We emphasize this point and direct attention to one major deficiency in this report.

There is essentially no reference in the report of the attitudes of farmers concerning the programs of land-grant universities.

Obviously, no one will measure the impact of these programs by research in Washington, or even on the university campus, where Mr. Hightower says he conducted this research. So I would suggest, Mr. Chairman, one of the best ways to evaluate this document, would be to get reaction from the very people who Mr. Hightower charges are not being served by these colleges, to see if they agree with his conclusions.

May I say we would like to extend a very cordial welcome for this to be done in Florida. We would welcome such a survey being made in our own State. We cannot document at length for this session to show how these programs have been received and appreciated.

There is one reference in this document to a small Japanese farmer who gave some acreage of his small farm to the university, just as an expression of his appreciation for what these programs have meant to him.

Three or four years ago we had a farmer in Dade County, who in his will, gave his entire farm to the university—to the Agricultural College—and he pointed out in his will, he considered most of what he had earned to be the result of what the university had done for him.

Now, I contend, Mr. Chairman, these are very meaningful expressions of appreciation for what these programs have done for our farmers.

We do not have time to respond to each of these specific charges made in the report.

We do not presume to do so. I would like to take one situation and refer to it briefly, which I think answers many of the erroneous allegations made by Mr. Hightower and his colleagues.

There are many statements in the report which I could cite, which are certainly erroneous.

Let me select one from the report, cited in our prepared statement:

A great deal of agricultural research involves tampering with nature's plan, using the sciences of genetics and chemistry. In a large part this research stems

from land-grant communities' faith in technology and fascination with the gadgetry.

Let me demonstrate what "technology and genetic gadgetry" have meant to the peanut growers in Florida over the last 30 years.

We choose peanuts to illustrate this for several reasons—first, this is an allotted crop so that we have accurate records of the size of farm operations.

It is a crop that is grown primarily by small farmers. Furthermore, it is grown in an area of the State that is experiencing some of the adjustment problems referred to in the report.

It is grown primarily by small farmers. In 1971, there were some 4,303 farms having peanut allotments in the State.

We have a table in our report which indicates a breakdown of these farms according to size.

About one-third of them had less than 5 acres. Two-thirds had less than 10 acres, and so on.

Insofar as we can determine, only two of the 4,303 farms could be classified as corporate farms, and these from all indications are incorporated family farms.

Over the past 30 years, as the chart indicates here, figure 1, I believe, there have been some very significant advances in the technology of producing peanuts, and most of this has come about from the development of new varieties by the University of Florida.

I would refer you to this chart, which indicates the average yield per acre of peanuts has approximately quadrupled over the last 30 to 35 years.

The increased returns to Florida peanut growers—small Florida peanut growers, as well as medium, and a few large—in 1971 alone was some \$13 million over the previous year's level.

It is estimated the increase in farm income throughout the South as a whole resulting from these new peanut varieties amounted to some \$100 million in 1971 alone.

I would submit that this has been a very significant contribution to increasing the income levels of rural people.

I would also contend that it has been aimed at helping all classes of farmers including the very smallest. The family farm has not been destroyed, but it has been modernized and much of the drudgery has been removed.

I would also remind you that while farmers have benefited by this—the ultimate beneficiary is the consumer in that through higher production it has been possible to provide the consuming public an ample supply of peanuts at reasonable costs.

If this is the results of "genetic gadgetry and other technology"—I would say let's have more, not less, of it.

Finally, to emphasize the fact that the consumer is the ultimate beneficiary of this work, I would like to give you some samples of this new peanut variety which has added millions of dollars to the pockets of peanut growers throughout the South and which is providing millions of dollars worth of nutrition and eating pleasure to the consuming public.

Mr. Chairman, I would like to give you some samples of this peanut, this newest variety, which is now planted on essentially every

acre of peanuts in Florida, and in a very high percentage of acres in the surrounding States.

Incidentally, these peanuts were developed by a grower cooperative near Williston, Fla., which is doing a very thriving business.

I would point out the University of Florida was very instrumental in helping this cooperative get established and in operation—another indication of how a land grant university has rendered assistance to farm and rural people.

The Hightower report points to the claim of land grant institutions concerning the "staggering achievement wrought by agricultural research," and I will not attempt to repeat all of the claims which Mr. Hightower says the land grant colleges have made—claims, for example, indicating that because of farmers' productivity, the American consumer pays a mere 16 percent of his disposable dollar for food.

Mr. Hightower concedes that these claims are appropriate, but then he goes ahead to question whether the achievements outweigh the failures, whether the benefits are overwhelmed by costs.

We might wish Mr. Hightower had made a thorough and objective analysis of costs versus benefits of land grant agricultural programs.

I think it would be very interesting to speculate on just what our Nation would be like today had the advances cited in this report not been made.

Throughout the report there are many suggestions that we would be better off without the technological developments than with them.

The argument against developing MH-1 to aid in the mechanization of tomato production is a good example of this type of persuasion.

It is abundantly clear that if these arguments against the development and application of technology had been successfully applied over the past 100 years, our Nation today would be one of the most undeveloped areas of the world.

The development and use of improved technology has helped make the United States the most advanced agricultural Nation on earth.

Similarly, the development and application of improved technology in industry has made us the great industrial Nation that we are today.

If what this Nation has accomplished through its agricultural and industrial revolution is undesirable, someone had better get the word to most of the other nations on earth which are striving desperately to make the same type of progress in agricultural development as we have achieved in the United States.

Indeed, throughout the world, the developing nations are attempting to create agricultural research and educational programs modeled after our own land-grant system—convinced that this is the best way to achieve their goals for stimulating economic development and improving the social and economic status of their citizens.

Mr. Chairman, just one or two concluding comments.

I would like to refer to the major thesis of the Hightower report, to the effect that the land-grant colleges are concerned primarily with serving big corporations.

In fact, there is this specific statement:

Today the complex serves only one constituency: corporate agribusiness.

We have already partially addressed this assertion. I would also point out that in Florida corporate farms constitute less than 5 percent of the total farms in the State.

Furthermore, many of these so-called corporate farms are nothing more than family farms that have been incorporated for business purposes.

Many of the really large corporate operations do not look to or need the help of land-grant colleges because they may, in fact, have their own research organization.

The report makes quite an issue of financial support to land-grant colleges from agribusiness firms. I think that this, too, needs to be put in perspective.

For example, reference is made to the fact that:

Chemical drug and oil companies invested \$227,158 in research at Florida's Institute of Food and Agricultural Sciences—accounting for 54 percent of research sponsored there for private industry in 1970.

This implies that a very high percentages of our total research support comes from chemical drug and oil companies.

Actually the \$227,958 referred to by the report represents less than 1 percent of the total budget of the Institute of Food and Agricultural Sciences at the University of Florida.

It represents less than 2 percent of the total research budget.

In Florida we do not do contractual research for agribusiness firms or anyone else. We accept a research grant only when the funds can be used to enable us to do a job which we need to do anyhow and which is consistent with our basic mission.

Much of the support we receive is in the form of relatively small grants related to the testing or evaluation of chemicals or other products which we normally would be testing in order to advise farmers concerning the suitability of their use. Despite the Hightower allegations, any work we do is fully available to the public.

Many commercial grants are also related to scholarships or graduate assistantships. Normally no strings whatsoever are attached to these grants. They are made by industry in recognition of the fact that industry is, in fact, dependent in a large measure upon the land-grant colleges for the development of trained manpower. These grants are rather modest investments in the development of such trained manpower.

The report says that:

Land-grant colleges must get out of corporate board rooms and they must get corporate interests out of their labs.

I cannot speak for all States; however, in my own State I would point out that we do not permit our personnel to serve as members of the board of directors of agribusiness firms. In fact, we do not even permit our personnel to consult with agriculturally related organizations in our State.

We recognize that there is always that possibility of being accused of conflicts of interest even though no such conflicts might exist.

I recognize that there may be instances of relationships between universities and agribusiness firms which might give rise to the sorts of concerns expressed in the report.

However, one of my serious concerns about the many phases of the report is that the writers make broad, sweeping indictments of the entire system without pointing out that the evidence which they use for making the systemwide indictments is very limited and may, in fact, apply only to a very small percentage of the total.

In closing, Mr. Chairman, let me say again that I think that this report represents one of the most biased, distorted, unfair, and generally irresponsible pieces of writing I have ever seen.

There is an old story about the farmer who every morning before getting ready to start plowing would pick up a large pole and almost knock the mule down by hitting him in the head.

When quizzed about his action the farmer said, "I'm just trying to get his attention."

I suppose the most charitable thing we can say about this report is that the intentions of the authors were merely to gain the attention of the land-grant complex.

Perhaps the sort of excesses resorted to in the report can be justified by the writers—just as by the farmer. However, I would contend that there may well be better ways of getting one's attention and that the end result may be even more productive than to resort to the type of tactics which have been used in this case.

I would repeat to you what I said to a local newspaper reporter who asked me to comment on the report. About the only part of the report that I can agree with is the recommendation in the summary—calling for a "full-scale public inquiry into the land-grant college complex."

Although I do not think this report merits the attention it has received, in the light of the charges made, perhaps a full-scale inquiry would be appropriate at the State level as well as by Congress.

Such an inquiry should include a careful examination of the authority given land-grant colleges of agriculture by Congress and State legislatures along with the manner in which these institutions have carried out this authority.

I think it should be obvious that we have never been authorized to be all things to all people.

If an inquiry is made as we suggest, I would propose it include an analysis of proposals to Congress and State legislatures to implement programs dealing with the sort of problems which have been referred to by Mr. Hightower in his book, programs which were never funded, or at the most very inadequately supported. There should be a complete analysis of these proposals.

When Mr. Hightower talks about the problems of rural communities, he gives the impression he has somehow invented the wheel, or at least discovered some new facts that have eluded the rest of us.

Actually he is merely expressing the same concerns which we in the land-grant colleges and USDA have had and been talking about for the last 15 years or so—and have been trying to do something about, may I add.

Actually his statements concerning rural problems could easily have been taken from testimony which I have made and many of my colleagues have made before Congress in recent years, requesting appropriations to allow us to be able to do more in the very areas he says more needs to be done.

Rural development programs, as we talk about them today, were started under the Eisenhower administration. I was in Washington under the Kennedy administration—as a part of that administration. This was the thrust which we had in that day.

It continued throughout the Kennedy-Johnson administration, and represents a major thrust of the Nixon administration. But the recently

passed Rural Development Act represents, Mr. Chairman, in my judgment, the first real serious commitment by Congress in helping to deal with this problem.

Finally, you realize, I am sure that the programs of land-grant institutions are scrutinized annually, by both Congress and State legislatures in the appropriation process.

If these programs are as misdirected and ineffective as Mr. Hightower alleges, the report, "Hard Tomatoes, Hard Times," is just as much an indictment of Congress and State legislative leaders as of the land-grant system.

Mr. Chairman, I appreciate your courtesy in allowing us to make this statement.

I would be happy to respond to questions.

Senator STEVENSON. Getting back briefly to that tasty tomato, I believe you said that it was ripened artificially with ethylene.

Dr. YORK. No; I did not say that.

This tomato was ripened "naturally," if I could use that term.

Let me explain why this tomato was ripened naturally. Let me also explain why this tomato has quality characteristics.

It is because of its firmness and firmness I would hasten to add, simply means there is more flesh, and less internal water. When you cut it open, you do not lose half of the fruit by the seed and water running out. And because of this, and because it is very resistant to soft-rot—this thing we have right here in this other (bought) tomato—this tomato can be picked and sold closer to a red-ripened condition than any other tomato that we are growing.

That is one of the advantages, and many such tomatoes are being picked and sold without the use of any ethylene.

There have been a lot of references in this report about the carcinogenic effects of chemicals. You know what ethylene is, it is a natural substance that is in this tomato, which helps advance the natural, ripening process.

The only reason ethylene is used in the harvesting and processing of many fruits and vegetables is that it just intensifies the concentration of this natural gas which accelerates the ripening process. And this is what is done with many fruits and vegetables.

There is nothing wrong with it, and if there is, we had better get the Food and Drug Administration to put all of these vegetables and fruits on their black list.

That is a ridiculous statement.

Senator STEVENSON. The only point I was trying to make, and I am not sure we want to spend a lot of time on that one variety of tomato, is that the artificially ripened, green tomato, ends up in the hands of the consumer with a lower content of vitamin A and C, does it not?

Dr. YORK. That is absolutely not true, Mr. Chairman.

I would welcome any scientific evidence to prove that.

We have made studies of this, and we have an analysis of this tomato and of other tomatoes that have been picked in their green state, and we have shown that there is no such difference.

Senator STEVENSON. I am talking about the immature green tomato.

Dr. YORK. Yes, sir. The practice is not to pick the immature tomato. If you do, you will get a tomato which is of poor quality.

Senator STEVENSON. Perhaps with this tomato it will be different, but I remember in 1971 there was a study of the Florida tomato, which concluded that 20 to 46 percent of the salad size tomatoes were picked immature, and I wonder with mechanization, whether that would increase? Or at least with the mechanical picker that simply shakes the bush, for it does not discriminate, so that you will have less selectivity.

Dr. YORK. Here is another characteristic of this tomato, and this has come about as a result of "genetic gadgetry." These have been developed so that a high percentage ripen at the same time, so that when you pick them, you have a very high percentage that are marketable.

I would not say that there are not some green tomatoes on the market, but anybody who attempts to sell an inferior quality tomato, is unwise because the market will "dry up." But that is one of the advantages of this tomato.

That is why this is liked better by the farm laborer because he can pick two to three times as many tomatoes from the same plant, and, therefore, he can make a greater income per day from this variety.

Senator STEVENSON. I might reiterate that this subcommittee has been concerned about the growing concentration of economic power at every stage from the production to the processing, to the distribution of food.

We have been concerned about continuing rural outmigration. In part, it appears that the movement of people from farm to city is due to mechanization, which has displaced labor, and which also has displaced the farmer. Another result is that people in those small towns are put out of work.

It is the agribusiness corporations which have the credit and the funds with which to purchase the mechanical harvester, and which have the advantages of crop subsidies, irrigation programs, tax loss farming policies, and others.

If your charge as part of the land grant college complex is a concern for the family farmer, the farmworker, rural America, agriculture—

Dr. YORK. Mr. Chairman, I hope that the land grant colleges do not get saddled with responsibility for writing tax laws.

We have no responsibility for what tax laws the Congress provides the American people.

Senator STEVENSON. I did not say that. I want to know who represents that small farmer and that farmworker. Who is thinking about the policies of government, many of which at this point appear to be hurting them?

Dr. YORK. We have programs and public policies that address taxation issues, but I do not think it is our responsibility to determine what Congress does.

Senator STEVENSON. I am not suggesting you write tax laws.

I am suggesting that we need help in formulating policies.

Dr. YORK. I was just getting ready to say we can provide you information to show you the implication of this, and we have done this sort of thing.

I can provide you information, but that is as far as we can go.

We can provide you information showing the impact this is having.

In fact, to illustrate this point, several years ago we were facing a fantastic increase in production of citrus, and we were projecting production far in excess of what we felt could be marketed, and a lot of this was coming about as a result of the very sort of thing we are talking about—people outside of agriculture making large investments, feeling this would be a good investment, or maybe a tax writeoff.

We discouraged this to try to avoid these moves that would hurt the legitimate farmer.

We can cite evidence of this type of activity all through the book.

Senator STEVENSON. You can do it, but what I am getting at is whether voluntarily land-grant colleges are doing it, really studying the revolution in rural America, and in the whole food production chain.

Dr. YORK. Well, I would invite your looking at some of the things that are being done.

One point you make, I would like to respond to, Mr. Chairman, the comment made frequently yesterday in testimony, that small farmers cannot afford to buy expensive machinery.

This may be true in terms of him buying that machinery outright and operating with the small acreage he has, but one approach to this problem, of course, is the concept of renting machinery and getting work done on a custom basis. But one thing is happening in Florida and throughout the country, is that many small growers are coming together in cooperatives, production cooperatives, where they can buy machinery, or share machinery, or where they can buy fertilizer, and get the advantages that big operators get.

In this report you will find in Florida, we have almost 200 cooperatives.

The university has done more than any other organization to help organize these, and to make them a viable part of agriculture in Florida, to help that small farmer we are all concerned about.

Senator STEVENSON. I am very glad to hear that. We have already held hearings on the cooperative movement in rural America. At the risk of oversimplifying what the witnesses from the cooperatives are telling us, they said they are limited because they cannot get access to the credit with which to acquire land and equipment. They also say that the real problem is acquiring for the small farmer access to the technological know-how and the managerial skills that are needed to operate a successful cooperative in this day and age.

Now, perhaps land-grant colleges are helping these co-ops. If they are, it is news to this subcommittee. Why aren't land-grant colleges doing more for these farmers through the extension services?

Dr. YORK. That is precisely the sort of thing that has been happening in our own State, and I would invite the committee to examine this.

I would invite you to talk to farmer cooperatives, and ask them who helped them get started.

Senator STEVENSON. Are they production cooperatives?

Dr. YORK. Some are producing; some are marketing; some are both.

I have in this book some material about a tomato cooperative, small farmers, most of them black. Although I have been told they are all black in talking to the director just last week, a member of our staff

said there were some small white farmers that were also in it. And you can read the statement as to how they got started, who is helping them, and who has continued to help them.

It is the extension service.

Senator STEVENSON. Your experience in Florida might be of benefit to cooperatives of small farmers. However, in land-grant colleges in most of the other States, I do not believe it is happening.

Dr. YORK. I do not think we are unduly unique in Florida.

I have had a chance to travel all over the country, but I am speaking only of Florida conditions.

Senator STEVENSON. Let me just ask you about another example of the kind of thing that land-grant colleges could be doing which perhaps could be of real benefit to many people in our society.

I remember some years ago a member of the Metropolitan Sanitary Commission in Chicago told me about their efforts to dispose of solid organic waste by shipping it to Florida for the production of citrus.

He was very proud of this. I have not heard from him since. I do not know how successful that was.

The disposal of waste and sewage treatment facilities is a continuing problem of the cities.

Those wastes do have useful purposes. I do know of some projects in Illinois where, on an experimental basis, such wastes are used to replant strip-mined land.

In another case, sludge has been used as a fertilizer, an organic fertilizer that does not cause the environmental problems that inorganic fertilizers can and do cause.

Why could not the land-grant college try to put these kinds of projects together for us? Would it not be in all our interests?

Dr. YORK. Mr. Chairman, you have made my speech for me on this subject.

We are doing just that sort of thing right now.

We have a project in cooperation with the city of Tallahassee, the State Capitol, in which we have worked out procedures to take the effluent from their sewage operations, and pump this through irrigation systems out onto the land that is actively growing either crops or trees. In this process we help dispose of a waste product, we get the benefit of the water agriculturally, plus the nutrients, which we would have to buy. The water pumped out on the land, that has the nutrients, passes down to the water table essentially a pure product. We all benefit; this is a natural relationship.

We are doing a similar thing in cooperation with Disney World, not as a farming project, but as a demonstration. As you have heard, Disney World is attempting to build a City of Tomorrow, and to demonstrate things in terms of urban development, that may help revolutionize the way we live tomorrow.

We have a project of similar nature in which we are helping them dispose of their waste products. These are liquid wastes.

We are doing a similar thing with solid wastes, and, of course, the best way to dispose of many solid wastes is to put it into the soil, and let it break ground, and in the process, it benefits the soil, and the crops are also benefited.

We are very heavily involved in this. In fact, we had a conference sponsored by our organization just 2 weeks ago in Tampa-St. Peters-

burg, in which we invited consulting and municipal engineers, concerned with waste disposal problems, and they spent better than a day and a half or 2 days going over just this sort of research with our helping them to put it into practice.

Senator STEVENSON. How do you determine your research priorities at the University of Florida?

Dr. YORK. We have a rather detailed and complex system of constantly evaluating our priorities.

We initiated a program about 8 or 9 years ago shortly after I went to Florida, in which we did some long-range planning in looking ahead at the trends, and what these trends might mean to agriculture, and trying to anticipate some of these changes, rather than having them run over us.

We brought in growers, representatives of all segments of our agricultural industry, and when I say industry, I am talking about farmers, producers, they are all part of this industry. We did a sort of analysis, in projecting ahead, looking at the problems, what we needed to be doing in terms of reorientation of our programs.

Now, every year we go through essentially the same process, on a less extensive scale.

We do make extensive use of advisory groups, representing producers. Then every department is constantly evaluating their programs, redirecting their efforts as needed.

Senator STEVENSON. Who is we? Who makes the decision whether or not to go ahead with a particular project?

Dr. YORK. I would say it is a process that many people are involved in.

We try to evaluate them—those having the administrative responsibility for the programs, myself, the deans, the department chairman—based on the best evidence we have of the problems and needs.

Senator STEVENSON. Do you have an advisory committee?

Dr. YORK. We have many such advisory groups, yes. We have groups representing various segments of our total interests throughout the State.

Senator STEVENSON. You have indicated you do make an effort to take those advisory bodies representative of the whole agricultural community?

Dr. YORK. Yes. We have had organized labor in our conferences that I have mentioned, to get the sort of input in terms of things that affect organized labor.

Senator STEVENSON. When you say organized labor, are you referring to the United Farm Workers?

Dr. YORK. I do not believe we have had any direct contact with United Farm Workers.

I do not believe they have ever made any effort to contact us, and in our knowledge of their being in the State, is only what we read in the newspaper.

We have had the AFL-CIO, and we had a conference on agricultural labor just within the last year.

We did have a representative from Mr. Chavez' organization in California.

Senator STEVENSON. Well, I hope you are not suggesting that it is all incumbent upon the farm workers to take the initiative?

I should think that the initiative could be forthcoming from both sides.

Dr. YORK. The initiative was taken in inviting people from California, but at that time, we had no knowledge that these people were in Florida, other than rumors, that they would be coming, and be organizing farm labor.

Our doors are always open. We would be happy to have them come in.

Senator STEVENSON. On page 10 of your statement, Dr. York, you suggest that the Hightower report should have made a thorough and objective analysis of costs versus benefits of land grant agricultural programs.

Why cannot the land grant colleges themselves conduct such analysis, or if they can, and they are not doing it, who is in a position to conduct such an analysis and do it in a thorough, fair, and objective way?

Dr. YORK. Well, there have been some analyses made, Mr. Chairman. I suspect the land grant community could do that, but many would consider it to be self-serving and would not accept it.

I have in my testimony some studies of this type that have been conducted that I would refer you to, and in fact, on page 11, we say what are the returns to society are from public investments in agricultural research and education?

Studies conducted at the University of Chicago, which I would remind you is not a land-grant institution, have indicated that the annual returns to society on accumulated investment in research on hybrid corn to be about 700 percent. A parallel study in Minnesota on poultry innovations indicate annual returns of 89 percent on research in breeding and nutrition.

Other studies have indicated that on the average the external rate of return to society on all investments in agricultural research and extension in this country is in excess of 100 percent annually.

These are the types of economic analyses that might give, in part, an answer to your question, but certainly the question of contribution to society are much greater than this.

I think it would be interesting, and I would like to see our own Institution as well as others to make an objective analysis of just what the impact of these developments have made on American society, because as I pointed out earlier, if there had not been these programs, if there had not been the progress in reducing the number of people needed to produce our food, the sort of thing that Secretary Butz referred to, we would be an entirely different Nation, we would be one of the most undeveloped nations on earth.

Senator STEVENSON. Well, I think that raises a very pertinent question.

I am not sure how adequate the analysis of that undertaking has been. Some strains of hybrid corn which have been developed through land-grant colleges, for example, are so low in protein that as a result, we have to import huge sums of fish from Peru to be used to obtain a high protein content of feed for hogs.

Does that kind of result get factored into the analysis?

Dr. YORK. Of course, there are a lot of possible implications and questions just as you mentioned, where our genetics have also produced some very high protein corns, and these may well become the

protein corn of tomorrow which may eliminate a lot of the need for supplemental protein.

Senator STEVENSON. Thank you, Dr. York, for appearing this morning. We must go on to other witnesses.

Your testimony has been very helpful. I thank you for your statement, and for your tasty exhibits.

Dr. YORK. Thank you, Mr. Chairman.

I would like, Mr. Chairman, for my entire statement to be made a part of the record.

Senator STEVENSON. Without objection, the statement shall be inserted in its entirety. However, as some of your appendix material is rather lengthy, I will ask the staff to excerpt for publication examples of the relevant materials, and the remainder will be retained in the permanent files of the subcommittee.

(The prepared statement of Dr. York, with additional information follows:)

Statement by Dr. E. T. York, Jr., Vice President for Agricultural Affairs,
University of Florida, before the Senate Subcommittee on Migratory Labor

June 20, 1972

Mr. Chairman, Members of the Committee:

I appreciate this opportunity to appear before your Committee to comment on the publication, "Hard Tomatoes, Hard Times" by the Agri-business Accountability Project.

We in Florida have a very special interest in this report because the term "hard tomatoes" in the title refers to a variety of tomatoes developed by the Institute of Food and Agricultural Sciences (IFAS) of the University of Florida.

No one could have suspected that this poor little innocent looking vegetable could have gained such national attention and notoriety by being a part of the title of the report under consideration here. In addition to the initial publicity surrounding the publication of the report, Nicholas Von Hoffman last week saw fit to comment editorially on CBS Morning News about this tomato--in a very unfavorable light.

In view of all of this publicity, I would like for you, Mr. Chairman, and the Members of this Committee to have some firsthand knowledge of this tomato. Indeed, I would like for you to take it home with you. And if I could parrot a very common TV commercial today, I would say "Try it--you will like it!"

I have also brought some of these tomatoes to Mr. Hightower and his staff for them to try also. I do this because it is obvious from this report that those responsible for its preparation have never had previous exposure to this tomato.

The report and many of the related newspaper articles referred to the development of "bell shaped" tomatoes which would lend themselves to mechanical harvesting. I would call your attention to the fact that these are not "bell shaped" tomatoes, they are nice and round as nature, according to Mr. Hightower, must have intended tomatoes to be. The reference to the "bell shape" undoubtedly came from much publicity given some 10 years ago to the development of such a tomato in California suitable for mechanical harvesting. The Florida tomato has little or no kinship with the California variety--despite the assumptions by the writers who apparently had not seen the Florida product.

Throughout the report the writers emphasize that the Land-Grant colleges assume a consumer be-damned attitude--being concerned only with helping

agri-business. They cite the development of the MH-1 tomato as evidence of this and imply that while it may be great for mechanical harvesting, it is too hard and tough to be a quality product for the consumer.

Actually nothing could be further from the truth. Many consider the MH-1 tomato to have the best eating quality of any tomato produced in Florida.

Attached to my statement is a letter (Attachment 1) from Mr. J. S. Peters, Manager of the Florida Tomato Committee--an organization of Florida tomato growers. I am also attaching a statement (Attachment 2) prepared by Dr. Pat Crill, who is concerned with the tomato breeding program of the University. These two documents provide some interesting commentary on the MH-1.

First it is emphasized that this is, indeed, a very high quality tomato--in fact; taste panels and consumer preference tests have indicated it to be the highest quality Florida tomato available today. In one supermarket evaluation of consumer preference, the MH-1 was selected three to one over other tomato varieties available in the market. Although this is the first year of any volume production of MH-1, wholesale buyers have been willing to pay premiums for this variety because of its high quality and acceptance by the consumer. The very idea that producers would choose to grow a product unacceptable to the consumer is grossly irrational.

Because of its firmness and thick walls, the MH-1 is more adapted to high speed handling procedures used to move fruit from the farm to the consumer. This results in considerably less waste with more of the fruit being marketable, which again reduces consumer costs and results in a higher quality product on the supermarket shelf.

Although the MH-1 has a potential for mechanical harvesting, 100% of the commercial tomato acreage in Florida is at the present time hand picked. Consequently, the variety is well suited to hand harvest, as well as having a potential for machine harvest. The MH-1 is preferred by farm laborers over conventional varieties as it is much easier and more profitable to pick by hand. The laborer can pick more than twice as many fruit as with conventional varieties.

The special harvesting techniques which have been developed by the University are designed to utilize present labor under much more improved working conditions. The semi-harvester is dependent on labor to be feasible and when used with MH-1 has yielded a superior product that reduces cost to the consumer.

The report implies that there is something undesirable in the use of ethylene gas to hasten the ripening of tomatoes which may have been picked mature-green.

As a matter of fact, ethylene gas is a natural product, released in the ripening process of many fruits and vegetables and has been used under controlled conditions for the purpose of speeding up the natural ripening process of numerous fruits and vegetables. There is absolutely nothing harmful about the use of ethylene gas. Actually the MH-1 requires the use of less ethylene gas than most other varieties which are picked green because the firmness of the MH-1 enables the tomato to be picked at later maturity dates. In fact, many MH-1 tomatoes are being marketed without the use of any ethylene gas in the ripening process. Indeed, this variety, because of its superior shipping and keeping qualities, may be the first major market tomato which can be harvested and sold by the producer in a red ripe condition.

It is also pointed out that MH-1 variety is adaptable to mechanical harvesting not just because it is a firm tomato but because being jointless, it separates from the vine without an attached stem. Stems of other varieties cause damage to tomatoes with which they come in contact during the trip from the vine to the consumer.

Certainly all of this provides a much different picture of the MH-1 than Mr. Hightower and his report have presented to the American people. The MH-1 has, in fact, many quality characteristics which make it a much improved tomato for the consumer.

This erroneous image of the MH-1 tomato is very characteristic of many aspects of this report. It indicates very clearly that Mr. Hightower and his staff did not do their homework well.

The report indicates that "research" was conducted in Washington and on several Land-Grant college campuses, including the University of Florida. I don't know the nature of the "research" at my institution--but I have yet been unable to find any member of our University community who has ever talked with this group--or, in fact, who have ever heard of them until this report was issued.

They refer to themselves as a research organization. Yet their product doesn't come close to deserving such a label.

The writers have taken material out of context--they have been masterful at times in the use of half truths--they have completely misrepresented many facts. The results of all of this is the most biased, distorted, and generally irresponsible piece of writing I have ever seen. Furthermore the language of the report insults and belittles the people of the Land-Grant colleges by referring to them as "soft headed" and "the most rested group you will ever meet." In many instances the writers use unnecessarily crude and offensive language. For example, they refer to some of the work of the Land-Grant colleges as "sociological bullshit."

I am not suggesting that there is no basis for criticizing the programs of the Land-Grant agricultural colleges. No public institution is immune and all organizations and institutions can benefit by fair, reasonable, and meaningful criticism. However, to be helpful, such criticism should reflect some degree of objectivity--should have some relationship to factual situations and need not be crude and offensive.

But aside from the abusive rhetoric, one must conclude that this report could have been written only by people who were both extremely naive and wantonly careless and irresponsible in making broad, generalized conclusions on the basis of a few carefully selected observations.

This report is so irresponsible, it does not deserve to be dignified by a detailed response. Mr. Hightower and his colleagues have gone to such extremes in their distortion of facts and biased analyses, the task of putting this report in perspective would be relatively simple; however, we do not have time to do that here today.

We have brought together in a separate document some material collected very hurriedly over the past three or four days to illustrate some of the programs and activities of one Land-Grant university--the University of Florida--in serving all of the people of Florida--not just agri-business as the report alleges. This brief summary refers to specific activities with individual farmers or with rural families or homemakers. The report also includes a few statements supplied by farmers or their families, indicating something of what these programs of research and extension have meant to them. I should emphasize that these statements do not represent a complete cross section or any sort of statistical random sampling. However, I would invite this Committee, or any other group interested in getting the facts surrounding the attitudes of farm and rural people to conduct such a survey to determine what the people who are the users and beneficiaries of these programs think about them.

We emphasize this point to call attention to one very major deficiency in this report. The writers point out that the report was based upon research done in Washington and on the campuses of several Land-Grant colleges. There is essentially no reference in the report of the attitudes of farmers and rural people concerning the programs of the Land-Grant universities. Obviously no one is going to measure the impact of these programs by "research" in Washington, or even on university campuses. One has to get out and see what is happening and sample the attitudes of those who are being served by these programs. Obviously this was not done.

I would suggest, Mr. Chairman, that one of the best ways to measure the effectiveness of these Land-Grant college efforts--one of the best ways to

evaluate the judgments made by Mr. Hightower and his group--would be to get reactions from the very people who Mr. Hightower charges are not being served by these colleges--to see if they agree with his conclusions. I am confident that if this were done, you would find that this small sampling of attitudes which we have included in this summary would be reflective of the general feeling of most farm and rural people. We would be extremely happy to have such a survey made in Florida if you would care to do so.

I wish we had time to respond specifically to each charge made in this report. This is not possible. However, I would like to take one situation in my home state which I think answers in a very meaningful way, many of the erroneous allegations made by Mr. Hightower and his colleagues.

Following are statements made ~~from~~ⁱⁿ the report:

"The Land-Grant community has done approximately nothing to extend the benefits of technology and management techniques to the vast majority of farmers and other rural Americans." (Page 245).

"Had the Land-Grant community chosen to put its time, its money, its expertise and its technology into the family farm rather than in corporate pockets, then rural America today would be a place where millions could live and work in dignity." (Page 247).

"Today the (Land-Grant) complex serves only one constituency: corporate agri-business." (Page 248).

"It is not that Land-Grant colleges are tied to agri-business, but that they are tied exclusively to it." (Page 191).

Throughout the report many references are made to the fact that Land-Grant colleges are concerned very little with improving rural income or with helping the consumer.

On Page 73 the writers say, "A great deal of agricultural research involves tampering with nature's plan, using the sciences of genetics and chemistry. In a large part this research stems from Land-Grant communities faith in technology and fascination with the gadgetry."

Let me demonstrate what "technology and genetic gadgetry" have meant to the peanut growers in Florida over the last 30 years. We chose peanuts to illustrate this for several reasons--first, this is an allotted crop so that we have accurate records of the size of farm operations. It is a crop that is grown primarily by small farmers. Furthermore, it is grown in an area of the state that is experiencing some of the adjustment problems referred to in the report.

In 1971 there were some 4,303 farms having peanut allotments in the state. The attached table indicates a breakdown of these farms according to size. Approximately one-third of the farms had allotments of five acres or less; two-thirds had ten acres or less; 85% had 20 acres or less; 95% had less than 40 acres. Insofar as we can determine, only two of the 4,303 farms could be classified as corporate farms--and these from all indications are incorporated family farms.

Over these past 30 years there have been some very significant advances in the technology of producing peanuts. The most significant of these advances has been the development of improved varieties which have greatly increased the yields of Florida peanuts. The attached chart (Figure 1) gives some indication of how yields have changed as new varieties, developed by the University of Florida, have come on to the scene. This chart indicates that the yields per acre of peanuts have essentially quadrupled since the early 40's. The new Florunner peanut which was released a couple of years ago is now being grown on essentially all of the acreage within the state. Furthermore, about 80% of the acreage in Alabama was planted to this variety last year as well and very high acreages in many of the surrounding states. The increased returns to Florida peanut growers in 1971 alone was some \$13 million over the previous year's level. It is estimated that the increase in farm income throughout the South as a whole resulting from these new peanut varieties amounted to some \$100 million in 1971.

Figure 2 indicates what improved technology has meant in terms of increased production and income to peanut growers in Florida over the past several decades.

I would submit that this has been a very significant contribution to increasing the income levels of rural people. I would also contend that it has been aimed at helping all classes of farmers including the very smallest. The family farm has not been destroyed, but it has been modernized and much of the drudgery has been removed.

I would also remind you that while farmers have benefited by this--the ultimate beneficiary is the consumer in that through higher production it has been possible to provide the consuming public an ample supply of peanuts at reasonable costs.

If this is the results of "genetic gadgetry and other technology"--I would say lets have more, not less, of it.

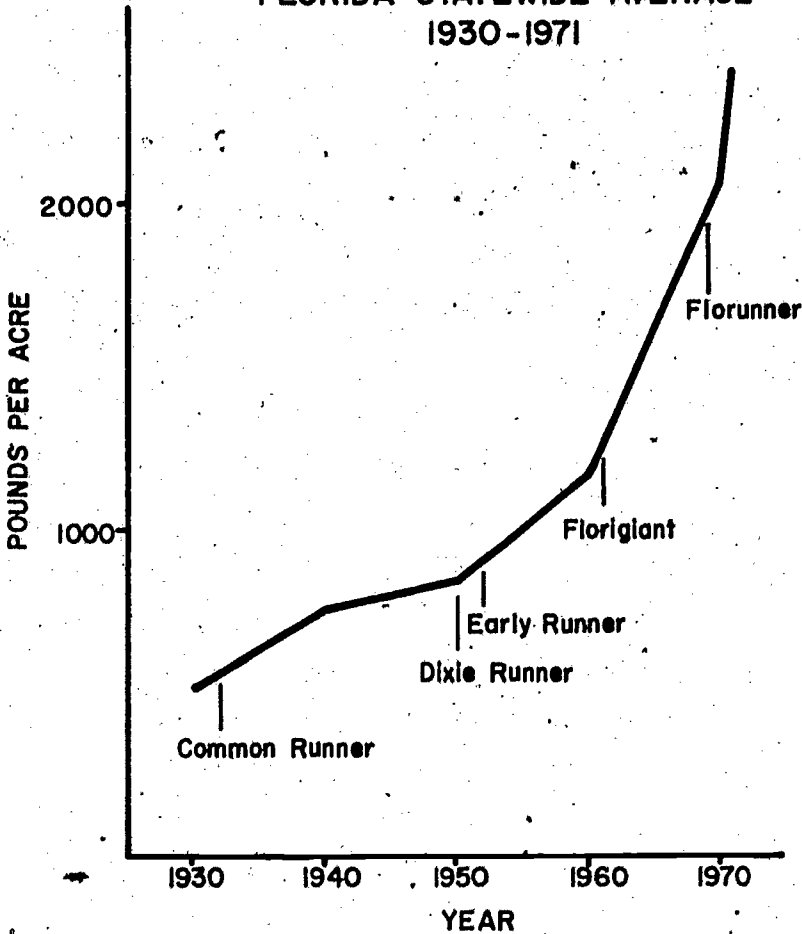
Finally, to emphasize the fact that the consumer is the ultimate beneficiary of this work, I would like to give you some samples of this new peanut variety which has added millions of dollars to the pockets of peanut growers throughout the South and which is providing millions of dollars worth of nutrition and eating pleasure to the consuming public.

TABLE I

FREQUENCY DISTRIBUTION OF 1971 FARM PEANUT ALLOTMENTS BY
SIZE GROUPS IN FLORIDA

SIZE GROUPS	NUMBER OF FARMS	PERCENT OF TOTAL
3.0 Acres and less	530	12.3
3.1 - 5.0	961	22.3
5.1 - 7.5	768	17.8
7.6 - 10.0	526	12.2
10.1 - 20.0	876	20.3
20.1 - 30.0	283	6.6
30.1 - 40.0	145	3.4
40.1 - 50.0	77	1.8
50.1 - 75.0	68	1.6
75.1 - 100.0	36	0.8
100.1 - 200.0	27	0.6
200.1 - 300.0	4	0.09
300.1 - 400.0	-	0.0
400.1 - 500.0	1	0.02
Over 500.	1	0.02
TOTAL	4,303	

PEANUT YIELD FLORIDA STATEWIDE AVERAGE 1930-1971



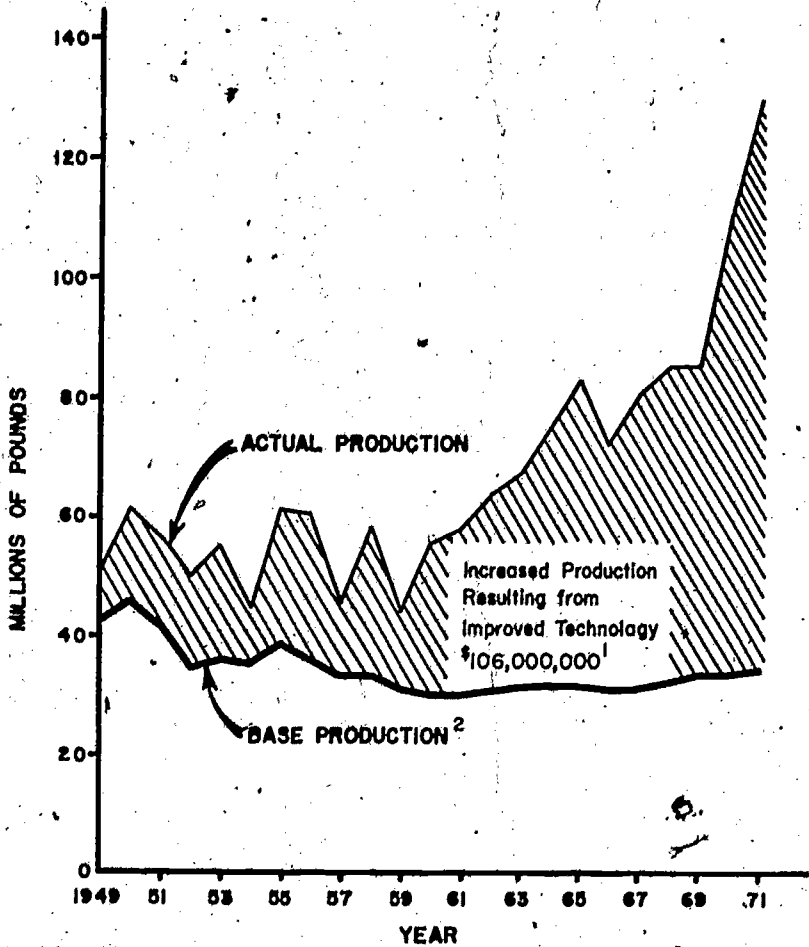
The new varieties developed by University of Florida plant breeders have made possible a four-fold increase in peanut yields.

This increase in 1971 alone was worth over \$13 million dollars to Florida peanut growers.

The increase in farm income in the South resulting from these new peanut varieties amounted to \$100 million, in 1971.

FIG. 1

VALUE OF IMPROVED TECHNOLOGY IN FLORIDA PEANUT PRODUCTION, 1949-1971



1 Value of Increased production at the average price for the 1971 year.

2 Base production based on the average production per acre for the 5 years, 1944-1948

FIG. 2

These peanuts were processed by a grower cooperative near Williston, Florida which is doing a thriving business. Incidentally, we might point out that the University of Florida was instrumental in helping this cooperative get established and in operation--another indication of how a Land-Grant university has rendered assistance to farm and rural people.

We could use many other commodities to illustrate the same point--the extent to which the development and application of improved technology has helped farm and rural people. We could also talk at length of the manner in which such technology has helped the consumer. In fact, the Hightower report points to the claims by Land-Grant institutions concerning the "staggering achievement wrought by agricultural research." These claims cited in the report include the following:

"... The farmer of today is able to produce food and fiber for himself and for 45 others; up from 11 others that he could provide for in 1940.

.... Because of the farmer's increasing productivity millions of other Americans are freed from farming and are able to pursue other occupations.

.... The consumer receives an abundant and steady supply of more food products than ever before.

.... Because of the farmer's productivity the American consumer pays a mere 16% of his disposable income on food, the lowest rate in the world.

.... As the producer of America's agricultural abundance the farmer is the major contributor towards a favorable balance of payments position for this country.

.... American agricultural technology and know-how stands as a final bulwark against world-wide famine."

"Everyone of these points can be conceded" says Mr. Hightower. "The question is whether the achievements outweigh the failures--whether benefits are overwhelmed by costs."

We might wish Mr. Hightower had made a thorough and objective analysis of costs vs benefits of Land-Grant agricultural programs. It would be very interesting to speculate on just what our nation would be like today had the advances cited above not been made.

Throughout the report there are many suggestions that we would be better off without the technological developments than with them. The argument

against developing MF-1 to aid in the mechanization of tomato production is a good example of this type of persuasion.

It is abundantly clear that if these arguments against the development and application of technology had been successfully applied over the past 100 years, our nation today would be one of the most undeveloped areas of the world. The development and use of improved technology has helped make the U.S. the most advanced agricultural nation on earth. Similarly, the development and application of improved technology in industry has made us the great industrial nation that we are today.

If what this nation has accomplished through its agricultural and industrial revolution is undesirable, someone had better get the word to most of the other nations on earth which are striving desperately to make the same type of progress in agricultural development as we have achieved in the United States. Indeed, throughout the world, the developing nations are attempting to create agricultural research and educational programs modeled after our own Land-Grant system--convinced that this is the best way to achieve their goals for stimulating economic development and improving the social and economic status of their citizens.

What are the returns to society from public investments in agricultural research and education? Studies conducted at the University of Chicago (which I would remind you is not a Land-Grant institution) have indicated that the annual returns to society on accumulated investment in research on hybrid corn to be about 700%. A parallel study in Minnesota on poultry innovations indicate annual returns of 89% on research in breeding and nutrition. Other studies have indicated that on the average the external rate of return to society on all investments in agricultural research and extension in this country is in excess of 100% annually.

We refer to hybrid corn research. Certainly this has been one of the most dramatic breakthroughs in agricultural technology within our country. I am sure, Mr. Chairman, that you are quite aware of the impact of this in your own state.. In the five year period from 1928-1932, Illinois grew on the average 9,300,000 acres of corn with an average yield per acre of 36 bushels. This was before hybrid corn and associated technology came on the scene. In 1971, Illinois had an average corn yield of 102 bushels per acre.

This is a good example of how "genetic gadgetry" has enabled the state of Illinois to essentially treble its corn production with less than a 10% increase in acreage. Obviously to have produced the same amount of corn in 1971 with yield levels of the late 20's and early 30's would have required almost 30 million acres of land.

I would also emphasize the impact of corn blight on corn production in Illinois. In 1969, Illinois produced about 950,000,000 bushels of corn. In 1970, because of the corn blight situation, production dropped to 736,000,000 bushels. Primarily because of the Land-Grant's system of "genetic gadgetry" it was possible to overcome this corn blight situation to the point today that it no longer poses the serious threat so evident two years ago.

We have emphasized the contributions which improved technology has made to higher agricultural production. At times this works to the detriment of the farmer, since prices of farm products frequently drop sharply when supply exceeds the demand for these products. However, I would emphasize the other side of that coin--the interests of the consumer. When production of a given commodity drops, the price to the consumer is likely to increase sharply. For example, a recent study of egg prices show that a 5% increase in production may result in a 20% reduction in price. Similarly, a 5% drop in production may result in a substantial increase in price to the consumer.

The poultry industry is an example of how improved technology has been passed on to the consumer. The absolute prices per pound of eggs and broilers are lower today than in the 1930's. (Table 2) Also, the quality of the products is superior to the ones sold in the 1930's. This is particularly significant considering the amount of general inflation the U.S. has had during this period.

Figure 3 illustrates the relationship between prices and production quite well in the citrus industry in Florida. These data show essentially an inverse relationship between production and prices. My point is that higher production may not always work to the advantage of the producer--but in most instances it certainly works to the advantage of the consumer. This fact illustrates again a point which has been so readily apparent over the years--that the primary beneficiary of improved agricultural technology has been the consumer. Hence, research aimed at developing such technology is in a very real sense "people oriented."

Similarly, for a more recent impact of technology on consumer price and quality, the price for a 6 ounce can of frozen orange concentrate has declined since the late 1950's. Solids equivalent to one additional orange have been added and processing technology now retains the orange essence to further improve quality.

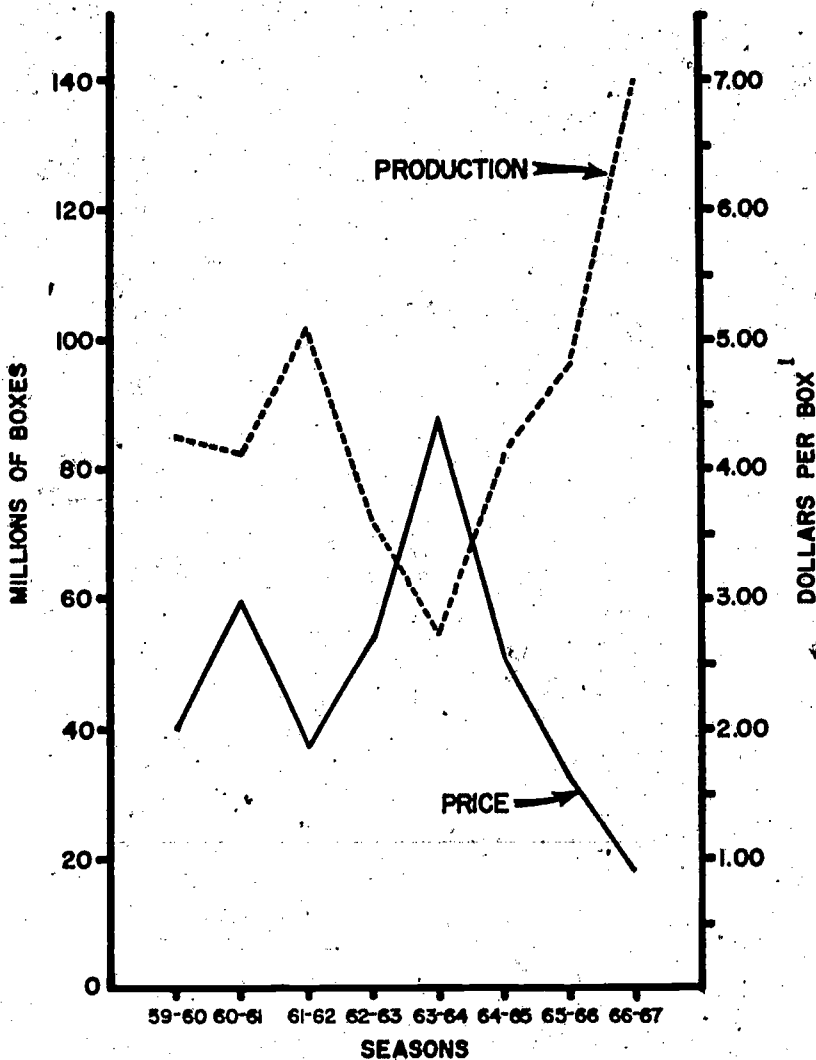
A recent government report reveals that the U.S. consumers have benefited greatly from improved technology in agriculture. It shows that the food purchased by all consumers in 1968 (99.4 billion dollars) would have cost \$16 billion more if it had been produced by the 1940 production and marketing practices. Of course, this means that low income people, who spend a higher percent

TABLE 2

Five Year Analysis Prices Received By Florida Poultrymen for Eggs & Broilers

Year	Egg Price (per dozen)	Broiler Price (per pound)
1941-45	37.2	27.2
1946-50	54.2	37.1
1951-55	53.4	28.0
1956-60	44.2	18.2
1961-65	35.2	14.2
1966-70	32.2	13.6

RELATIONSHIP BETWEEN ORANGE PRODUCTION AND ORANGE ON-TREE PRICE



Season Average On-Tree Price per Box

FIG. 3

of their income on food, would benefit more from this change than other consumers. Hence, if we were still producing food with 1940 technology, there would be considerably more people classified at poverty level than is currently the case.

Due to the nature and organization of U.S. agriculture most of the benefits of technology change is passed on to the consumer regardless of whether it is produced by small farmers, larger farmers, corporations or cooperatives.

One might take this statement and attempt to prove the contention that such technology was not in the farmer's interests. However, I doubt if anyone can seriously contend that it is not in the consumers interest--or in the interest of the public generally.

What, then, is the alternative? To prohibit the use of such technology as Mr. Hightower's report suggests in the case of mechanization of tomatoes? -- or continue to take advantage of such technology which can ultimately be in the consumer's interests. I think the answer is obvious.

The major thesis of the Hightower report is to the effect that the Land-Grant colleges are concerned primarily with serving big corporate farming interests and agri-business generally. In fact, there is this specific statement: "Today the complex serves only one constituency: corporate agri-business."

We have already partially addressed this assertion. I would also point out that in Florida corporate farms constitute less than 5% of the total farms in the state. Furthermore, many of these so-called corporate farms are ~~not~~ ^{nothing} more than family farms that have been incorporated for business purposes. Many of the really large corporate operations don't look to or need the help of Land-Grant colleges because they may, in fact, have their own research organization.

The report makes quite an issue of financial ~~support~~ ^{SUPPORT} received by Land-Grant colleges from agri-business firms. I think that this, too, needs to be put in perspective. For example, reference is made to the fact that "chemical drug and oil companies invested \$227,158 in research at Florida's Institute of Food and Agricultural Sciences--accounting for 54% of research sponsored there for private industry in 1970." This implies that a very high percentage of our total research support comes from chemical drug and oil companies. Actually the \$227,958 referred to by the report represents less than 1% of the total budget of the Institute of Food and Agricultural Sciences at the University of Florida. It represents less than 2% of the total research budget.

In Florida we do not do contractual research for agri-business firms or anyone else. We accept a research grant only when the funds can be used to enable us to do a job which we need to do anyhow and which is consistent with our basic mission.

Much of the support we receive is in the form of relatively small grants related to the testing or evaluation of chemicals or other products which we normally would be testing in order to advise farmers concerning the suitability of their use. Despite the Hightower allegations, any work we do is fully available to the public.

Many commercial grants are also related to scholarships or graduate assistantships. Normally no strings whatsoever are attached to these grants. They are made by industry in recognition of the fact that industry is, in fact, dependent in a large measure upon the Land-Grant colleges for the development of trained manpower. These grants are rather modest investments in the development of such trained manpower.

The report says that "Land-Grant colleges must get out of corporate board rooms and they must get corporate interests out of their labs." I cannot speak for all states, however, in my own state I would point out that we do not permit our personnel to serve as members of the Board of Directors of agri-business firms. In fact, we do not even permit our personnel to consult with agriculturally related organizations in our state. We recognize that there is always that possibility of being accused of conflicts of interest even though no such conflicts might exist.

I recognize that there may be instances of relationships between universities and agri-business firms which might give rise to the sorts of concerns expressed in the report. However, one of my serious concerns about the many phases of the report is that the writers make broad, aweeping indictments of the entire system without pointing out that the evidence which they use for making the system-wide indictments is very limited and may, in fact, apply only to a very small percentage of the total.

In closing, Mr. Chairman, let me say again that I think that this report represents one of the most biased, distorted, unfair and generally irresponsible pieces of writing I have ever seen.

There is an old story about the farmer who every morning before getting ready to start plowing would pick up a large pole and almost knock the mule down by hitting him in the head. When quizzed about his action the farmer said, "I'm just trying to get his attention."

I suppose the most charitable thing we can say about this report is that the intentions of the authors were merely to gain the attention of the Land-Grant complex. Perhaps the sort of excesses resorted to in the report can be justified by the writers--just as by the farmer. However, I would contend that there may well be better ways of getting ones attention and that the end result may be even more productive than to resort to the type of tactics which have been used in this case.

I would repeat to you what I said to a local newspaper reporter who asked me to comment on the report. About the only part of the report that I can agree with is the recommendation in the summary--calling for a "full-scale public inquiry into the Land-Grant college complex."

Although I don't think this report merits the attention it has received, in the light of the charges made, perhaps a full-scale inquiry could be appropriate at the state level as well as by Congress.

Such an inquiry should include a careful examination of the authority given Land-Grant colleges of agriculture by Congress and state legislatures along with the manner in which these institutions have carried out this authority.

You realize, I am sure Mr. Chairman, that the programs of the Land-Grant institutions are scrutinized annually by both Congress and state legislatures in the appropriation process. If these programs are as misdirected and ineffective as Mr. Hightower alleges, the report, "Hard Tomatoes, Hard Times," is just as much an indictment of Congress and state legislative leaders as of the Land-Grant system.



Florida TOMATO COMMITTEE

June 14, 1972

POST OFFICE BOX 20835
ORLANDO, FLORIDA 32814
TELEPHONE (305) 864-3871

Dr. E. T. York
Vice President for Agricultural Affairs
University of Florida
Gainesville, Florida, 32601

Dear Dr. York:

The Florida Tomato Industry is deeply concerned over recent news releases similar to the one enclosed. We have reviewed a summary of the report referred to in the article, which is entitled "Hard Tomatoes - Hard Times". The report was the result of a study financed principally by the tax-exempt Field Foundation. We have also reviewed the statement of Honorable David R. Obey of Wisconsin in the House of Representatives, as reported in the Congressional Record - Extension of Remarks, on June 5, 1972.

We believe that it is in order for the Florida Tomato Committee to provide you with factual observations concerning this very biased compilation of half-truths and conclusions which impinge upon the integrity of the Florida tomato industry and its relationship with University of Florida scientists.

The Florida Tomato Committee is a quasi agency of the U. S. Department of Agriculture and its members and alternates are Florida tomato growers who are appointed by the Secretary of Agriculture upon nomination by the industry. The Committee is charged with the responsibility of making recommendations to the Secretary which will permit him to promulgate regulations under the authority of Marketing Order No. 966. Such regulations must be in compliance with the declared policy of the Congress, as reflected in the Agricultural Marketing Agreement Act of 1937, as amended, which will establish and maintain such orderly marketing conditions as will result in parity prices for tomatoes produced in the production area of Florida and which will protect the interests of consumers.

For many years, consumers have indicated an interest in a tomato which is firm when ripe, i.e., a tomato with "thick walls, firm flesh and free of cracks", with a palatable taste such as many people associate with the "beefsteak" tomato of home garden fame, but which unfortunately is unsuitable for shipping because of its susceptibility to bruising during the handling process. The MH-1 has these qualities which consumers prefer and this fact is indicated by their

Established Pursuant to Federal Marketing Order No. 966, As Amended.

Florida TOMATO COMMITTEE

Dr. E. T. York

June 14, 1972

willingness to pay a premium over other varieties for this very fine result of Florida Experiment Station research.

It is true that the MH-1 variety is adaptable to mechanical harvest, not because it is a "hard tomato" but because, being jointless, it separates from the vine without a stem attached to it. Stems on other varieties cause damage to tomatoes with which they come in contact during the trip from the vine to the consumer.

With the continuing trend towards improved working conditions, the advent of mechanical tomato harvest for fresh market will, no doubt, occur within the foreseeable future, not because agri-business organizations wish to replace their workers with machines, but because the workers who do the back-breaking "stoop labor" will seek and find other employment under conditions which are less strenuous. In order to continue their production of tomatoes for the consumers of this country, all tomato producers, both large and small (and there are a great number of the latter in Florida), will likely adapt their farms to mechanical harvesting aids. However, no MH-1 or other tomato variety is being commercially harvested for fresh market by mechanical means at this time. Without such mechanization, the demand for tomatoes will be supplied by foreign producers who, with their uncontrolled production practices and an unlimited supply of low cost labor, have already made deep in-roads into the U. S. market.

The authors of the above-mentioned report conclude that the MH-1 tomato is "designed to be harvested green and to be ripened in storage by application of ethylene gas". As a matter of fact, ethylene gas is a natural product, released in the ripening process of many fruits and vegetables and has been used under controlled conditions for the purpose of accelerating the ripening of numerous varieties of tomatoes in the past, both at shipping point and terminal receiving markets. Ethylene gas not only enhances the quality of tomatoes, but also hastens the natural ripening process. The fine quality of the MH-1 tomato, which the consuming public has so avidly welcomed during its first year of limited commercial production, is the result of many years of selective breeding by the scientists at the University of Florida and the use of ethylene gas will improve its natural fine quality. As you know, ethylene gas is found in many homes which have fresh fruits, vegetables or flowers present. The ambient air of produce departments in supermarkets contains relatively large quantities of this natural, harmless material which occurs as a result of the fruit and vegetable ripening process.

In conclusion, it is our belief that the efforts of the University are resulting in better working conditions and more desirable employment for our rural citizens and, at the same time, providing the consumers of this nation with products of better quality, superior flavor, and longer shelf life.


Florida TOMATO COMMITTEE

Dr. E. T. York

June 14, 1972

Trusting that these comments will encourage the University of Florida and the other Land Grant colleges of the nation to continue their agricultural mechanization and development research in order that Americans may continue to be the best fed, best dressed people in the world.

Sincerely,


J. S. Peters,
ManagerJSP:lb
encl.

cc: Hon. Earl Butz, Secretary of Agriculture
Florida Tomato Committee Members and Alternates
Government List

ADVANTAGES OF FLORIDA MH-1^{1/}
Pat Crill

1) Has more genetically controlled disease resistances than any previously developed variety. This reduces the amount of chemical pesticides needed to grow the crop with the result of less pesticide pollution and a more economically produced crop which the consumer can purchase at a lower price.

2) It is the best quality tomato presently available to the consumer as measured by consumer preferences and tastes. A most outstanding quality attribute is the excellent red color and interior as well as exterior appearance.

3) Because of its firmness and thick walls, Florida MH-1 is more adapted to high speed handling procedures used to move fruit from the farm to the consumer. This results in considerably less waste with more of the fruit being marketable which again reduces consumer costs and results in a higher quality product on the supermarket shelf.

4) A high quality crop of Florida MH-1 can be produced by the farmer with a minimum input of stoop labor. The need for pruning, tying, staking and other stoop-labor chores has been very significantly reduced. Farmers have been unable to obtain labor to do these chores in the past and the result has been the production of an inferior crop with higher costs when compared with Florida MH-1.

5) It is adapted to both hand-harvest as well as machine harvest. When hand-harvested, as 100% of the commercial tomato acreage in Florida is, picking is made much easier. The laborer can pick more fruit from each plant in less time than previously required. This means more money with less effort in less time to the laborer.

6) The University of Florida researchers most involved with developing machine harvest practices feel that the best way to harvest MH-1 is to pick once by hand followed by a destructive mechanical harvest. This means the laborer will pick the lower 6-8 fruit by hand and receive as much income for this as they would normally get from 2-3 pickings of other varieties.

7) Special harvesting techniques have been developed by IFAS research to utilize present labor under much more improved working conditions. The semi-harvester is dependent upon labor to be feasible and when used in MH-1 fields has yielded a superior product at reduced cost to the consumer.

Viewed from any point, FLORIDA MH-1 is an improvement over current varieties for the grower, the laborer, the packing house, the wholesale buyer and most of all the consumer.

^{1/} Dr. J. P. Crill, Assistant Professor (Assistant Plant Pathologist) Univ. of Florida Agricultural Research and Education Center, Bradenton, Florida.

PREFACE

The following pages contain citations of specific charges from the Agribusiness Accountability Project Task Force Report Hard Tomatoes, Hard Times.

The reader should realize that time and space limitations permitted neither detailed rebuttal of the complete report nor the inclusion of every available piece of supporting evidence. However, comment is included in regard to specific charges by the report as they relate to Florida.

By: Donald Poucher & K. B. Meurlott
Assistant Communication Specialists
Institute of Food and Agricultural Sciences
University of Florida

THE MH-1

FROM THE TASK FORCE REPORT

"... and there is at least very serious doubt that the consumer, in whose name all this has been done, is better off with the assembly-line food that results." AND

"The University of Florida, for example, recently has developed a new fresh market tomato (the MH-1) for machine harvesting. In describing the characteristics that make this tomato so desirable for machine harvest, the University pointed to 'the thick walls, firm flesh, and freedom from cracks.' It may be a little tough for the consumer, but they can't please everyone."

COMMENT

The release of Florida MH-1 has done more to improve the quality of fruit available to the American consumer than any other event. What the Task Force Report fails to mention is that a tomato with "thick walls, firm flesh and free of cracks" does not mean that the tomato is unpalatable or tough and inedible. What it does mean is that the fruit is exactly what consumers look for in tomatoes. They are not easily bruised nor are they soft and "squashy" to the touch. And because they are firm, MH-1 fruit can be harvested "red-ripe" and can withstand the rigors of processing and shipping, with a longer shelf life than other tomato varieties. Further, MH-1 tomatoes are adaptable to machine-harvest not because they are "hard" but because they are jointless and separate from the vine without a stem attached to them to cause fruit damage as they travel from field to consumer.

As far as taste is concerned, consumer taste panels have cited the MH-1 as a tomato of excellent quality. In fact, it has been likened to the famous home garden variety "Beefsteak" tomato. In its first year of limited commercial production, the MH-1 has found wide acceptance among consumers who are willing to pay a premium over other varieties. Further, the MH-1 is a favorable tomato because it is preferred by farm laborers over the conventional varieties. MH-1 fruit are much easier and more profitable to pick by hand. The laborer can pick more than twice as many tomatoes per plant as with the conventional varieties, and he can pick this amount in less time than before.

The Task Force Report also concludes that the MH-1 tomato is "designed to be harvested green and to be ripened in storage by application of ethylene gas." In the first place, ethylene is a natural product, released in the ripening process of many fruits and vegetables and has been used under controlled conditions for the purpose of accelerating the ripening of numerous varieties of tomatoes in the past. Ethylene is harmless. The link in the report between ethylene and a reduction of Vitamin A and C content of the tomatoes is sheer guesswork.

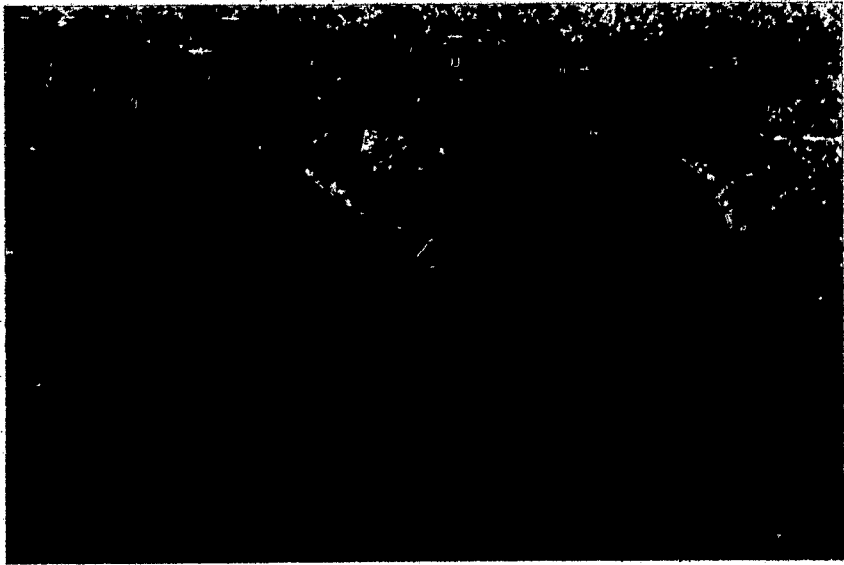
Herein are statements concerning the MH-1 as well as the circular announcing its release.

Circular S-212

September 1971

FLORIDA MH-1

*florida's first machine harvest
fresh market tomato*



Agricultural Experiment Stations
Institute of Food and Agricultural Sciences
University of Florida, Gainesville
J. W. Sites, Dean for Research

CONTENTS

	Page
Introduction	8
Origin	4
Description	5
Yield	5
Fruit Characters	7
Reaction to Fruit Rot	7
Maturity	8
Vine Characters	8
Fruit Separation	8
Post-harvest Characteristics	8
Genetically Controlled Disease Resistances	11
Disease Resistances	11
Disease Tolerances	11
Genetic Diseases Controlled	11
Seed Production	11
Acknowledgments	12

Florida MH-1, Florida's First Machine Harvest Fresh Market Tomato

Pat Crill, J. W. Strobel, D. S. Burgis,
H. H. Bryan, C. A. John, P. H. Everett,
J. A. Bartz, N. C. Hayslip, W. W. Deen¹

The tomato industry of Florida provides one of the major sources of agricultural income to the state. The industry has been developed, supported and maintained by utilizing research conducted by the University of Florida, Institute of Food and Agricultural Sciences (IFAS). IFAS research scientists² concluded in the early 1960's that the tomato industry would have to become almost fully mechanized if it was to survive in an age of urbanization where labor simultaneously becomes both more expensive and less available for crop production. Since present varieties were not suitable for mechanical harvesting, research was initiated to develop a fresh market variety possessing the necessary concentrated fruit set and mechanical handling characteristics.

When present (jointed) varieties are mechanically harvested, most fruit retain a short stem which can puncture adjacent fruit during post-harvest handling. Manual stem removal is difficult and often requires excessive labor. A necessary characteristic of a machine harvest variety is that most fruit detach from the plant free of stems (jointless). Several sources of jointless germ plasm were evaluated, and the fruit separation conditioned by the recessive J_2 gene was found superior (cover photograph). A polygenic effect apparently conditions the ease of separation of fruit from the stem, and extensive testing with mechanical fruit removers was necessary to

¹ Crill: Assistant Professor, Plant Pathology, Agricultural Research and Education Center, Bradenton; Strobel: Professor and Chairman, Ornamental Horticulture Department, University of Florida, Gainesville; Burgis: Associate Professor, Horticulture, AREC, Bradenton; Bryan: Assistant Professor, Horticulture, AREC, Homestead; John: Manager of Agricultural Research, H. J. Heinz Research Department, Bowling Green, Ohio; Everett: Professor, Soils Chemistry, ARC, Immokalee; Bartz: Assistant Professor, Plant Pathology Department, University of Florida, Gainesville; Hayslip: Professor, Entomology, ARC, Fort Pierce; and Deen: Assistant Professor, Agricultural Engineering, AREC, Belle Glade, Fla.

² Members of Florida Agricultural Experiment Stations Projects 398 and 1406.

select plants which possessed optimum separation. Development of techniques to measure fruit separation characteristics in the F_2 , F_3 , and F_4 generations was necessary for the development of FLORIDA MH-1.

Any tomato variety developed for production in Florida must of necessity contain a considerable number of disease resistance genes. FLORIDA MH-1 represents the maximum number of disease resistance genes which have been incorporated into an inbred-line tomato variety. It also represents the maximum (but not the ultimate) in fruit set concentration of any variety currently available.

ORIGIN

FLORIDA MH-1 is the breeding stock which has been tested widely in the State as MH-1 and in the Southern Tomato Exchange Program as STEP 599. The family line designation of FLORIDA MH-1 is 2432-1-1-SpBk-SpBk, and the pedigree is diagrammed in Figure 1. The cross, utilizing Walter as the female

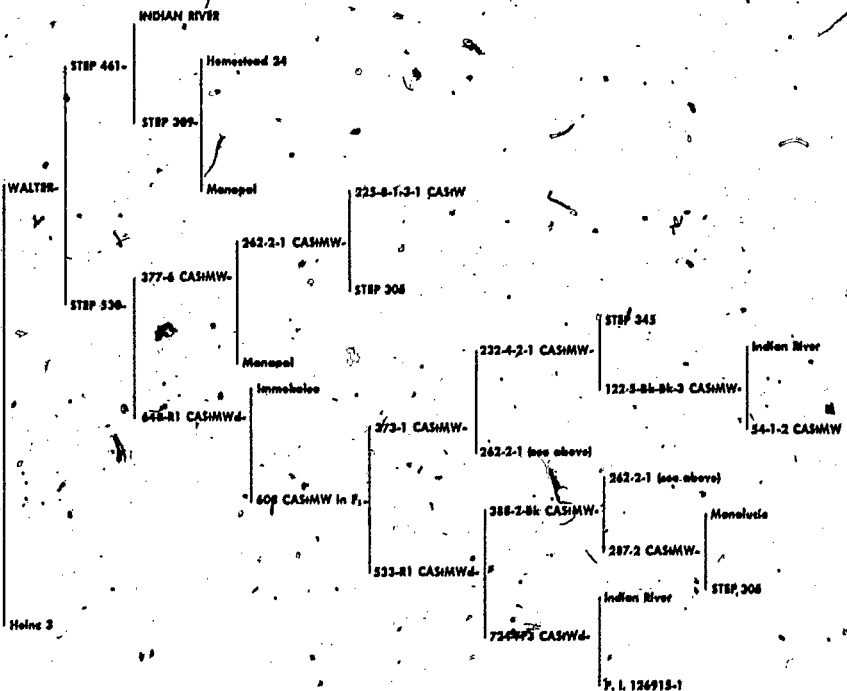


Figure 1.—Pedigree of FLORIDA MH-1.

parent, was made during the Spring 1969 season at Bradenton using pollen from the breeding line Heinz 3. Walter was selected as a parent because of 1) resistance to race 2 of the *Fusarium* wilt organism, 2) concentrated fruit set, 3) smooth, crack-free fruit, and 4) excellent ripening characteristics of the fruit. Heinz 3 was chosen as a parent because of 1) jointless fruit separation, 2) resistance to *Verticillium* wilt, 3) concentrated fruit set, 4) firm fruit with excellent color, and 5) uniform ripening fruit.

Intensive selection pressure was applied in the F_2 and F_3 generations for *Fusarium* and *Verticillium* wilt resistance; good fruit removal characteristics including j_2 separation; and a concentrated set of uniform ripening, very firm, crack-free fruit with good internal and external color and smoothness. The F_4 selection was a single plant which produced very smooth and uniform sized fruit with a smooth styler end. A special bulk selection was made from plants in the F_5 population which had characteristics similar to the F_4 plant. Seed was harvested as a special bulk from the F_6 population—rogued for disease susceptibility, small fruit size, and cracked fruit—and was released as breeders' seed to commercial seed companies by the Florida Foundation Seed Producers, Inc.

Table 1.—Marketable yield of mature-green tomatoes comparing FLORIDA MH-1, Walter and Homestead 24.

Variety	Bradenton		*Homestead	Immokalee	
	1970 fall	1971 spring	1971 spring	1970 fall	1971 spring
	— tons/acre —		— tons/acre —	— tons/acre —	
FLORIDA MH-1	27.0	18.4	6.8	18.0	27.0
Walter	27.0	22.7	3.9	18.7	23.6
Homestead	27.5	19.1	2.2	—	21.5

*Low yields were due to freeze damage January 20, 21, 1971, and to severe potato virus infection.

DESCRIPTION

Yield

Replicated yield test nurseries of both hand harvested and machine harvested plots indicated that FLORIDA MH-1 had the capacity to produce yields comparable to Walter and superior to Homestead (Table 1). In most machine-harvested yield trials FLORIDA MH-1 was not compared with any of the standard varieties because of their unsuitability for machine harvest

Table 2.—Yield, graywall reaction, and fruit removal characteristics of five machine-harvest tomato breeding lines grown at Bradenton and harvested with the IFAS portable shaker — fall, 1970.

Breeding Line	6x7 Fruit Removed (marketable)						Total		Percent Stems by Weight				Percent Fruit/Plant 6x6 and Larger	Number of Marketable
	Fruit on Vines		mature-green		Total	Marketable	Small Fruit	Biological Yield	percent		percent			
	color		cull	greens					small					
	U.S. #1	U.S. #2												
	tons/acre	tons/acre	tons/acre	tons/acre	tons/acre	tons/acre	tons/acre	tons/acre	percent	percent	percent	no.		
MH-1	0.63	3.93	15.93	1.03	20.91	21.54	2.67	10.44	35.52	23	10	23	0.9	17.7
MH-2	0.27	0.06	10.38	2.37	12.81	12.08	2.67	11.37	28.20	—	9	20	21	13.2
MH-3	0.12	2.55	10.53	3.09	16.20	16.35	5.64	11.97	34.41	1	5	7	13	14.3
MH-4	0.36	0.36	9.03	6.90	16.29	16.68	8.52	13.14	39.00	11	17	26	40	13.5
MH-5	0.39	1.56	7.38	5.10	14.04	14.43	4.86	11.91	32.37	12	15	37	55	11.9

(Table 2). All standard varieties produce jointed fruit which rendered them unusable as machine-harvest varieties.

Fruit Characters.

Fruit of FLORIDA MH-1 are of intermediate size, equal to or larger than those of Walter. Fruit are uniform ripening and lack the dark green base or green shoulder which has characterized previous Florida tomato varieties. Mature-green fruit have a very smooth styler-end, but the shoulders tend to be slightly ridged. The stem scar and internal core are normal. Internal and external color (Figure 2, Figure 3) are excellent, which results in a very attractive fruit. Fruit shape is a deep or elongate globe. Very little white tissue occurs in the pericarp walls or locular areas, and the locular gel tends to be slightly greenish in color, but no more so than in any other Florida variety.

Excellent ripening to full red color from mature-green fruit has occurred in all ripening room tests, both experimental and commercial. Stages in ripening from mature-green to full ripe are similar to the stages in Walter. Extensive testing in commercial packing houses demonstrated FLORIDA MH-1 ripens favorably after treatment with ethylene gas. Ripening of fruit with the experimental chemical ethephon was also successful in small scale tests. Fruit texture is quite firm, even when red-ripe. Flavor is quite acceptable, with fruit taste slightly milder or less acid than Homestead 24 and higher in sugar than either Walter or Homestead 24. Outstanding characteristics of the fruit which make it desirable for machine harvest are the thick walls, firm flesh, and freedom from cracks. Harvesting and marketing of red-ripe fruit may be possible with MH-1 because the fruit are so firm.

Reaction to Fruit Rot

Fruit harvested mechanically may be more subject to damage than hand harvested fruit. These damaged areas could result in entry points for fruit-rotting pathogens. Fruit harvested during the winter and spring of 1971 from the east Coast and south Florida growing areas were inoculated with the following rot pathogens in the laboratory under controlled conditions at Gainesville: *Stemphylium ilicis*, *Stemphylium botryosum*, *Alternaria tenuis*, *Phoma destructiva*, *Geotrichum candidum* (sour rot) and *Erwinia carotovora* (soft rot). Results of

one test using *E. carotovora* are tabulated in Table 3. FLORIDA MH-1 appears to be more tolerant to soft rot and sour rot than in Walter. Additionally, FLORIDA MH-1 is just as tolerant to *S. ilicis*, *S. botryosum*, *A. tenuis*, and *P. destructiva* as Walter and Homestead 24.

Maturity

FLORIDA MH-1 is quite similar to Walter in maturity when evaluated in several locations. The crown-hand fruit of FLORIDA MH-1 ripened nearly simultaneously with Walter when grown in adjacent plots. Since FLORIDA MH-1 has a more concentrated fruit set, maturity of FLORIDA MH-1 will be completed before Walter, resulting in an earlier harvest. The ideal concentrated fruit set desirable for machine harvest has not been attained with FLORIDA MH-1, but it is superior to any other Florida variety.

Vine Characters

FLORIDA MH-1 has a determinate vine characteristic quite similar to Walter. When lightly pruned and grown as a hand-harvest variety, fruit size is greatly increased; however, excessive pruning should be avoided. Adequate foliage is present to provide good cover for the concentrated fruit set, but it is not excessive.

Fruit Separation

In shaker tests the amount of mature-green fruit retaining stems after fruit were removed from the vine has been about 10% (Table 2). This is considered nearly optimum, since percentages less than this usually result in shattering (fruit separate so easily they fall off before harvest). In actual machine harvest tests 70 to 85% of the fruit were usually free from stems.

Post-harvest Characteristics

FLORIDA MH-1 was developed primarily for use as a mature-green harvest variety. The ability of mature-green fruit to ripen to maturity was evaluated in ripening rooms at Bradenton, Homestead, and Gainesville. Temperature regimes included (a) 68°F for approximately 2 weeks and (b) 40°F for 7 days and then transferred to 68°F for ripening. The latter simulated field chilling and its effect on fruit ripening. In all experiments

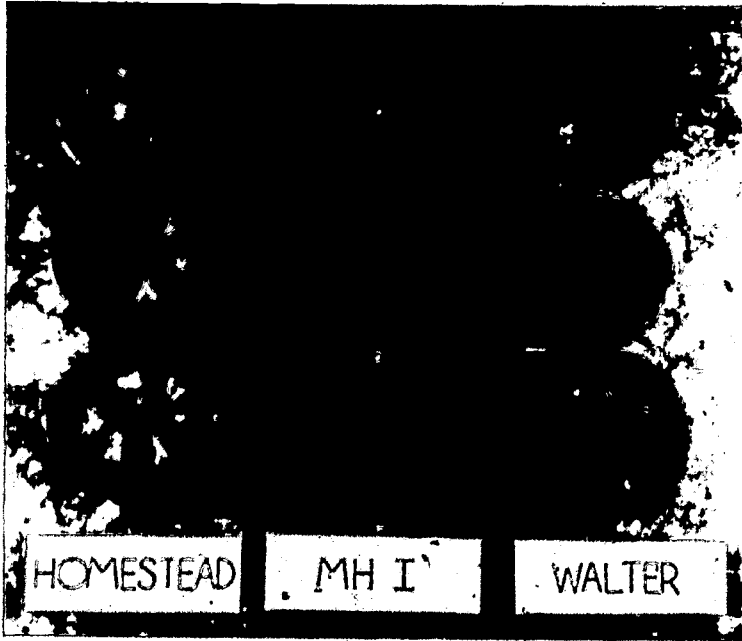


Figure 2.—Internal color is good, with very little white tissue.

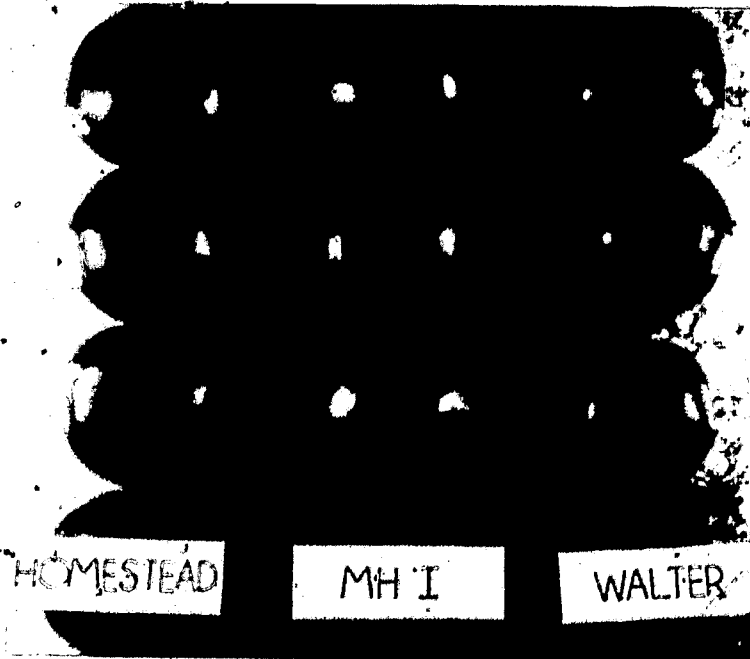


Figure 3.—External color of FLORIDA MH-1.

Table 3.—Days after inoculation required for soft rot lesions to develop on 20% of tomato fruit grown at two locations, kept at 70°F, inoculated with three different concentrations of *Erwinia carotovora*.

Location		Shane Farms and Left Farms, Inc. - HOMESTEAD					
Bacteria Cells/ml		10 ⁷		10 ⁶		10 ⁵	
Pre-inoculation Treatment		chilled		not chilled		chilled	
Variety		days	days	days	days	days	days
Walter		2.0 ¹	3.0	2.0	3.0	2.0	3.0
Homestead		3.3	5.7	3.3	11.3	4.0	12.0
FLORIDA MH-1		4.0	7.3	3.0	10.3	11.3	13.0
University of Florida Agriculture Research Center - IMMOKALEE							
Walter		1.0	2.0	1.0	2.7	2.0	4.0
Homestead		1.3	3.3	1.7	6.0	2.3	6.7
FLORIDA MH-1		1.0	3.3	2.0	5.0	2.0	5.7

¹Each value represents the mean of 3 replicates.

ripening was equal to or better than Walter. The ripened fruit possessed excellent red color and were quite firm.

GENETICALLY CONTROLLED DISEASE RESISTANCES

FLORIDA MH-1 contains more disease resistance genes than any previously developed tomato variety. It is unique in that it is resistant to both race 1 and race 2 of *Fusarium* wilt as well as *Verticillium* wilt.

Disease Resistances

1. *Fusarium* wilt - race 1 (*Fusarium oxysporum* f. *lycopersici* (Sacc.) Snyder & Hansen)
2. *Fusarium* wilt - race 2 (*Fusarium oxysporum* f. *lycopersici* (Sacc.) Snyder & Hansen)
3. *Verticillium* wilt (*Verticillium albo-atrum* (Reinke & Berth)
4. Gray leafspot (*Stemphylium solani* (Weber)
5. Leaf mold - several races (*Cladosporium fulvum* (Cke)

Disease Tolerances

1. Early blight (*Alternaria solani*) Ell & G. Martin) L. R. Jones & Grout)
2. Tobacco mosaic virus - Alexander's 5 strains
3. Blossom-end rot
4. Graywall
5. Sour rot (*Geotrichum candidum*) Pers.) Carmichael)
6. Soft rot (*Erwinia carotovora*) L. R. Jones) Holland)

Genetic Diseases Controlled

1. Fruit pox
2. Gold fleck
3. Autogenous necrosis
4. Catface
5. Crease-stem
6. Radial cracking
7. Concentric cracking
8. Black shoulder

SEED PRODUCTION

FLORIDA MH-1 is a pure-line variety, released in the F₂ generation, possessing a large number of genetically controlled

disease resistances. The purity of this variety can best be maintained by professional seedsmen who recognize the various diseases and have the facilities necessary to locate and eliminate rogue plants. This is particularly true with FLORIDA MH-1, since susceptibility to several of the diseases is polygenically controlled.

Distribution of seed for seed production purposes will be through the Florida Foundation Seed Producers, Inc., Gainesville, Florida 32601.

ACKNOWLEDGMENTS

Appreciation is expressed to Dr. J. P. Jones, AREC, Bradenton, for assistance in screening for various disease resistances and to Drs. J. C. Raulston and J. P. Jones, AREC, Bradenton, for photography. Appreciation is also extended to T. H. Cline, John Pressley, Jr., and Leandro Ramos for extensive technical assistance; to Dr. D. D. Gull for fruit color, firmness, and quality evaluations; and to Council Farms, Flavor-Pict, Strano Farms, Harlee-Garguilo, and Iori Farms for providing land and packing house facilities for commercial testing.



RUSKIN VEGETABLE CORPORATION

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RUSKIN, FLORIDA 33570

June 14, 1972

Dr. E. T. York
Vice-President of Agriculture
University of Florida
1002 Dan McCarty Hall
Gainesville, Florida 32611

Dear Sir:

It is my understanding that the MH-1 Variety of Tomatoes is under attack from an organization known as Agribusiness Accountability Project.

The above mentioned Agribusiness Accountability Project maintains that the MH-1 Tomatoes are of poor quality, ill-shaped, and have no flavor. They do, however, concede that it is hard.

Therefore, I wish to state the following in Defense of the MH-1 Tomatoes:

1. As conceded by the Agribusiness Accountability Project the MH-1 is a very firm tomato. If it were not, the consumer would not pick it up from the retail shelf. It slices well without the insides running out.
2. As for the shape of the MH-1, it will consistently grade out more US #1 tomatoes than most any variety except the Walter Variety.

(2)

3. As for flavor - The people that we have questioned have indicated that they enjoyed the flavor, however, the desired flavor of any tomato is an individual preference.

4. The MH-1 ships better than any variety of tomato that we have ever seen, with less waste at the consumer end.

To sum it up, the MH-1 Tomato is the finest tomato that we have ever seen. This is what our customers tell us, not just our opinion.

In closing, I wish to state that I am the head of a processing and sales organization that handles tomatoes for thirteen relatively small farmers. All of our tomatoes are staked, therefore, must be hand picked.

If the MH-1 Tomatoes are successfully attacked and cease to exist, the consuming public, the grower, the retailer, and agribusiness in general will be the losers.

Respectfully,

RUSKIN VEGETABLE CORPORATION

A. C. Powell
A. C. Powell..
General Manager

MECHANICAL HARVESTING

FROM THE TASK FORCE REPORT

"Overwhelmingly, agricultural research continues to be committed to the technological and managerial needs of the largest-scale producers and of agribusiness corporations, and it continues to omit those most in need of research assistance."

COMMENT

In Florida, mechanical devices are being developed for agricultural production and harvesting not to displace labor, but rather to fill a rapidly increasing labor void. Our best estimates tell us that by 1980, Florida will experience a labor deficit of 22,000 workers. Thus, in many commodity areas (tomatoes included), harvesting devices will mean the difference between getting the food to the market or letting it rot in the fields. Further, such research occupies less than 8% of the total research effort in Florida.

The report also charges that the small farmer is not welcome in the land grant research lab. However, in Florida, scientists developed the tomato harvester as well as the MH-1 tomato at the urging of the state's tomato growers—both large and small—who realized that increased shortages of harvesting as well as "stoop" labor, foreign competition, and general increased production costs made mechanical harvesting essential for the survival of the \$100-million dollar-a-year Florida tomato industry. It is simply a choice of either losing an industry, or mechanize. Yet, harvesting equipment (the semi-harvester) costs substantially less than \$10,000 and will be available to both the small and large grower.

Furthermore, we in Florida are working at the request of the tobacco grower organization to develop a mechanical harvesting device. Contrary to the charge that the small farmer is not welcome in the research lab, agricultural research is being conducted for the small grower and his needs.

The cabbage harvester developed by University of Florida scientists is another example of mechanization technology available to both small as well as large farmers. The cabbage harvester is economically feasible for farms with plantings as small as 20 acres.

Specific reference examples are included in the following pages.

And Florida agricultural research is also aimed at studying the effects of mechanization on farm labor. Scientists are studying the effects of mechanization on the citrus industry with attention to types of jobs and number of workers affected. In addition, Florida has just completed a farm labor survey to pinpoint the farm labor numbers and characteristics with attention to extending unemployment insurance to agricultural workers. Another project (Florida Project Agriculture) seeks to determine the state's agricultural labor needs in terms of numbers and skills and updating adult and vocational training programs as needs would dictate.

Tomato Industry's Future Linked to Mechanization

Chuck Woods

Florida's \$100 million-a-year tomato industry is in a race against time for survival. Faced with a steady invasion of tomatoes from Mexico and mounting labor problems at home, growers need labor-saving methods and devices to keep their industry alive and competitive.

"While other segments of Florida agriculture are being hurt by Mexican competition too, tomato growers have the most to cry about," says Dr. George A. Marlowe, chairman of the University's Vegetable Crops Department.

Imports have increased by more than 220% in the last 10 years, while Florida tomato production has remained nearly constant. The alternatives are few. Florida's tomato industry must either find ways of holding its own or lose out completely to foreign competition.

Mexico's principal advantage is an abundant supply of cheap labor. It's not uncommon for their workers to put in a 10-hour day for as little as \$2.10. By contrast, Florida workers are paid more for one hour's work than Mexican workers are paid for a full day's work. And, like almost everything else these days, labor costs continue their upward spiral.

Furthermore, most Mexican growers (who are often financed by U. S. investors) are now using some of the newer disease resistant varieties developed by



Dr. Pat Crill (center), assistant professor at the Gulf Coast Station, Bradenton, holds the new experimental "jointless" tomato variety which is being developed for use with mechanical harvesters. Dr. James W. Strebel (right), professor and former head of the Gulf Coast Experiment Station, initiated much of the tomato breeding research now underway. Dr. Strebel is now chairman of the Department of Ornamental Horticulture, Gainesville. Dr. Ben Vilsen, assistant professor at the Sub-Tropical Experiment Station, Homestead, is on the left.

University of Florida researchers for our own growers.

Recent attempts by the Florida Tomato Committee (a group of 12 producers and shippers located in the Manatee-Ruskin, Ft. Pierce, Immokalee, and Dade

county growing areas) to dam the Mexican import flood by excluding undersized tomatoes from the U. S. market have been largely futile. It seems that this is only a stop-gap measure—at best—to buy some more time to

RESEARCH REPORT FOR JANUARY/MARCH, 1971

Page 3



During recent tests of the Johnson harvester at the South Florida Field Laboratory in Immokalee, growers climbed aboard the machine to observe the separation of fruit more closely.

permit development of a mechanical harvesting system, Dr. Marlowe said.

But the myriad problems are not easily solved. Development of a machine to gently pick, sort,

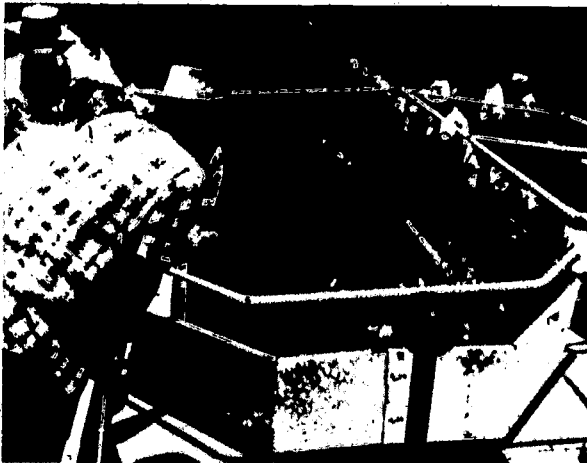
and wash fresh tomatoes without bruising them presents dozens of problems for Experiment Station researchers. Besides the harvester itself, practically every other aspect of the tomato growing bus-

iness is being geared to mechanization.

All sorts of new or improved cultural practices — including variances in the length and shape of plant beds, seed physiology, planting schedules, plant densities, fertilization, moisture and pest control, vine training, and use of growth regulators—are being tested with the goal of achieving crops with uniform maturity for "once-over" mechanical harvest.

Of particular interest is the use of new plastic and paper mulches over plant beds to control weeds, soil moisture, and fertilizer leaching. Mulches will also reduce sand damage to the fruit and aid in harvester pick-up, according to Professor Norman C. Hayslip at the Indian River Field Laboratory, Ft. Pierce, who is coordinating research on new cultural practices for the project.

One of the keys to the ultimate success of a mechanical harvesting system is the develop-



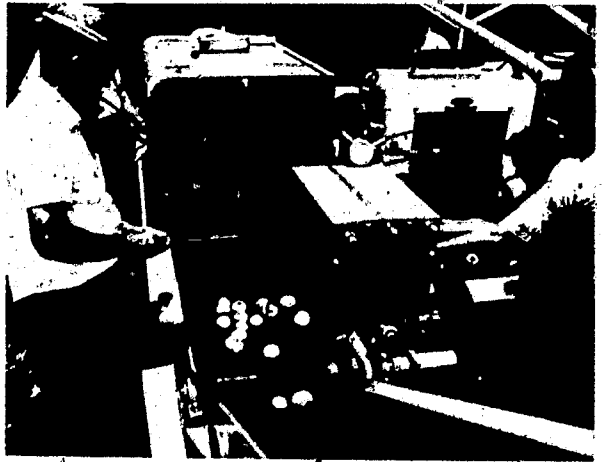
A series of rubber-covered "fingers" in the machine's shaker bed gently separate tomatoes from the plants. Fruit then drops between padded guide bars for transfer to the conveyor belt for sizing and washing.

ment of new tomato varieties that will be compatible with the machine. So an extensive tomato breeding program is being coordinated by Dr. Pat Crill, assistant professor at the Gulf Coast Experiment Station, Bradenton, and his colleagues. They're seeking disease resistant "jointless" tomato varieties that will separate easily and neatly from the stem when they're harvested by machine. Breeding such a tomato isn't easy though. It involves hundreds of genetic variables affecting such things as tastiness, redness, skin thickness, maturity, and degree of disease resistance.

To date about six breeding lines look promising for use with mechanical harvesters, and Dr. Crill hopes to release the first one (MH-1) by September of this year. The as yet unnamed jointless variety is resistant to Fusarium Races 1 and 2, Verticillium wilt, and grey leaf spot. It is tolerant to early blight and tobacco mosaic virus.

For every problem in the complex mechanization process, there's at least one Experiment Station researcher working on it. The overall program, known officially as Project 1406, is being headed by Dr. Herbert H. Bryan, assistant professor at the Sub-Tropical Experiment Station, Homestead. William W. Deen, assistant professor at the Everglades Experiment Station, Belle Glade, is coordinating research on the development of the machinery for the harvester.

Before work was started on machinery to harvest fresh market tomatoes grown on Florida's sand and rock soils, Deen, Hay-slip, and others looked at existing machines being used on California's heavy clay soils to harvest tomatoes for canning. It



Close-up of tomatoes as they emerge from spray wash on the Johnson harvester.

was thought such machines could be used under Florida conditions, but they caused so much damage to the fruit that new components for fresh market tomatoes were designed.

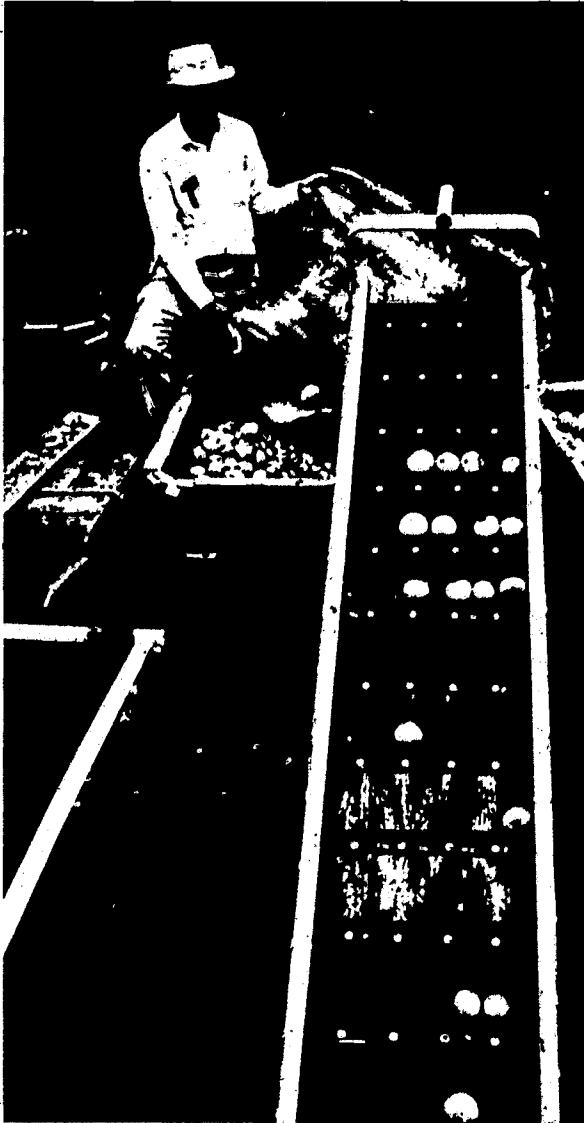
After lengthy testing of individual components, Deen assembled a mobile machine in 1968. Described as a "once-over, destructive harvester," the machine severs plants at their base, lifts them with rubber-covered "fingers," and gently shakes tomatoes loose from the plants.

Refinements have been added since then, but the machine is not meant to be a prototype. Deen said its main purpose is to evaluate various components that would be needed to modify existing commercial machines being used to harvest tomatoes for processing. Data gained from the development of the University's machine might also be used by a commercial manufacturer to construct a new harvester for fresh market tomatoes.

One of the main goals of the

harvester development program has been the prevention of excessive injury to fruit, explains Dr. Dwain D. Gull, associate professor in the Vegetable Crops Department, Gainesville, and coordinator of post-harvest research for the project. Critical evaluation of punctures, cuts, and bruising is being made to perfect machinery that will cause no more — hopefully less — injury than occurs in hand harvest. Others are studying post-harvest disease problems associated with mechanically harvested fruit.

One of the most promising commercial machines tested by the Experiment Station researchers is built by California's Johnson Farm Machinery Company, Woodland. "While it did a good job of harvesting fresh tomatoes in Immokalee and Homestead last year, we really didn't have as much time as we would have liked to thoroughly evaluate the machine. Additional testing and modifications, based on experiences with our Florida-designed



Final step in the mechanical harvesting process is the transfer of the tomatoes via conveyor belt to bulk containers next to the harvester.

components, will be needed to minimize damage," Dr. Bryan explained.

Another machine, manufactured by the Hart-Carter Company, Peoria, Illinois, is currently being tested on rock soils in Homestead and will be moved to other areas of the state in April of this year.

Bryan believes there will be some limited use of existing commercial machines, such as the Johnson and Hart-Carter machines, this year. With further improvements, there should be a gradual switch to mechanization over the next three years.

"Successful achievement in this area will largely neutralize the advantage which Mexico now has because of their abundant supply of cheap labor. It will also minimize labor problems here," Dr. Bryan said.

Besides those already named who are heading the various research sub-committees for the overall project, other faculty members are making important contributions.

Donald S. Burgis, associate professor at the Gulf Coast Experiment Station, is evaluating new machine harvest tomato varieties for ripening ability, overall fruit quality, and response to different cultural methods. He is evaluating various herbicides for weed control in machine harvest systems.

Dr. Paul H. Everett, professor at the South Florida Field Laboratory, Immokalee, is working closely with Crill, Burgis, Deen, Hayslip, and Bryan in evaluating new machine harvest varieties and harvesters under field conditions. Dr. Everett is also conducting plant population, fertilizer, and mulching studies for machine harvesters.

SUNSHINE STATE AGRICULTURAL

Assisting William Deen with the engineering studies are three faculty members in the Agricultural Engineering Department, Gainesville. Dr. Richard C. Fluck, associate professor, is determining exact force levels needed to mechanically separate tomatoes from plants. Dr. Larry O. Bagnall, assistant professor, is studying various aspects of bulk handling after the tomatoes are harvested. And Dr. Larry N. Shaw, assistant professor, is devising methods to vine train young tomato plants for mechanical harvest.

Lawrence H. Halsey, associate professor in the Vegetable Crops Department, is conducting seed physiology and plant population studies, particularly as they relate to uniform crop maturation. New dwarf tomato varieties for mechanical harvest are being developed by Dr. Albert P. Lorz, professor in the Department.

Post-harvest disease control measures are being studied by Dr. Jerry A. Bartz, assistant professor in the Plant Pathology Department, Gainesville, and Dr. Ralph Segall, plant pathologist at the U.S. Department of Agriculture's Market Quality Research Laboratory, Orlando.

Dr. Bryan pointed out that the machine harvest project is benefiting from other researchers in the Institute of Food and Agricultural Sciences too. They are seeking improved cultural practices, new sources of disease resistance, and better pest control measures.

"Continuing cooperation of the Florida Tomato Committee, growers, manufacturers, and product inspectors and handlers will be essential if fresh market tomato harvesting in Florida is to become a reality in the near future," Dr. Bryan stated.



Dr. Everett (from left), Dr. Bartz, and Professor Hayslip examine tomatoes harvested by the Johnson machine for damage.

VERTICAL INTEGRATION

FROM THE TASK FORCE REPORT

"Vertical integration. The movement of agriculture in-put and out-put firms into the production stage of food and fiber. The movement can be direct...(or) it can be indirect... in both cases, control over food and fiber production passes from farmers to agri-business corporations."

COMMENTS

The definition presented of vertical integration is not the one generally accepted by the economists in that it is described as a process moving only from the top down. Actually, vertical integration more often takes place from the bottom up. No mention is made in the entire report of farmer cooperatives; yet it is the formation of production and marketing cooperatives that most often leads to vertical integration. These cooperatives are made up of small and medium size farmers who form a business which will be more effective in competition with larger farm operations, or assume some of the marketing and/or processing function in the movement of food to the consumer. Cooperatives buy from their members and return the profits to their farmer members. There are nearly 200 production and marketing cooperatives in Florida, many of which have been fostered or aided by cooperative Extension, including two recently organized tomato production cooperatives composed of small Black American farmers.

The Task Force report cites "in depth audits of marketing and management firms" (p. 228). What it fails to say is that Florida Extension conducts one such audit each year and that it is done with farmer owned cooperatives as well as business firms as an educational tool to help improve business and management decisions for other small farms and businesses.

See examples of research and Extension work with cooperatives that follow.

INTERVIEWS WITH BLACK COOP OPERATORS

On Thursday, June 15, 1972, telephone interviews were conducted with operators of two Florida cooperatives for black farmers.

A verbatim transcript of those interviews are attached.

The interviews are conducted by Assistant Editor K. B. Muerlott.

The following was transcribed verbatim from a taped telephone conversation between Mr. Heurlott and Mr. McCray:

McCray: I'm Edmund McCray, manager of Manahill Farmers' Cooperative, Palmetto, Florida. This cooperative is composed of approximately forty small farmers. We got help from our local county agent here in Manatee County and secured a machine, a tomato grading machine, to grade our tomatoes. He was able to make contact with a house in South Carolina in order to get this machine for us. In setting up our organization--our Cooperative organization--we got help from Doctor Eastwood from the University of Florida in setting up this cooperative and we continued to get consulting help from his right on through in our operation. We also got help from the engineering department of the University of Florida in drawing plans for our machinery and setting it up, and plans for our new building that we plan to construct. Mr. McNutt, our local county agent, has been very helpful in any way he could, helping this organization to go forward. We also got help from Mr. L. A. Marshall at Florida A&M University in organizing our co-op. He visited the farmers and talked the program with him and encouraged him to go into this type of operation. Our cooperative is composed mostly of small farmers, who have one or two acres, up to about fifteen acres and we've been able to get the help from other local organizations. But I think that it's through the effort of the University and the Extension Service that we really got started and I think we owe some type of acknowledgement to them for their help, in helping this small group who were not able financially to start operations themselves without help from some other organizations.

QUESTION: Did you mention that the co-op is made up of -- is it all black farmers, or...

McCray: No, we have small white farmers, too, coming into our organization.

The following was transcribed verbatim from a taped telephone conversation between Mr. Meurlott and Mr. Woodson:

Woodson: They've been around and did a lot of work for us here, local, so I would say that they did a pretty fair job here in what they were undertaking to do. They come out and they give some soil tests and show contents of soil and what-not, and salt in the water content, and various things that the farmer needs, you see. So, those are some of the things they have rendered service to us with. So if your program is in coordination with them, well I would say it's a pretty nice program.

QUESTION: Then you're familiar with Mr. McNutt, your county agent?

Woodson: Right, I'm familiar with him, I know him.

QUESTION: You've probably been over to the branch experiment station---have they been involved in any way with your work?

Woodson: Right, you're speaking of Doctor Walters over there?

QUESTION: Yes...

Woodson: Right, he's given us a lot of assistance, Doctor Walters did, over here in the county, you know. So he, just this recent spring, he came out and looked at some of the plants. We was in trouble with the seed bed out there, that actually was too sweet, the land was too sweet so he give us some information. Matter of fact, he prescribed some things that--well I would say--pesticides that we put on there, and also fungicides that really brought the plant out and otherwise we would have had to plow it up and do it over again. So he's right here in the area and not only for myself, he helps a lot of other customers. Not customers, I mean farmers, growers... so he's been doing a good job here. Actually, it's all the major growers, tomato growers here and I guess citrus too kinda count on him. He's one of the fellas that, when they get in trouble, he kinda helps them out. That would be an asset, I'd say. I know those two programs that I talked about has been an asset.

QUESTION: You're familiar of course, that the programs there in the county are connected with the University of Florida?

Woodson: Yes.

QUESTION: I guess you get some help from Florida A&M also...?

Woodson: Yeah, but it is a little farther away, you see. I want to talk about the ones in my district, you know...

QUESTION: Originally Richfield was a co-op of small farmers, is that not correct?

Woodson: No, it never has been a co-op of small farmers.

QUESTION: Didn't you come from around Gainesville--didn't you farm up in this area?

Woodson: No, I never have been.

QUESTION: How long have you been farming?

Woodson: Practically all my life.

QUESTION: I was just wondering how you got started--were you always a big operator?

Woodson: No, not by a long shot, you know.

QUESTION: How did you really get rolling?

Woodson: I just went from one acre to two acres, went up to seven and up like that, you know, gradually. Down through the years, first thing you know, I was considered a large farmer, I mean that's what people say you know. I would say I'm considered one of the larger growers in the area, you know. That's not self-styled, that's what they say.

QUESTION: Has your county agent been involved with you all these years, helping you from the time you were a small operator?

Woodson: Well, I would say yes, directly and indirectly, you know. When I had one or two acres I'd say they were in and out--we always got information from them. Always have, like taking soil samples and things of that nature.

-0-

Bryan Sanders Prepares To Load Waiting Truck With Packed Tomatoes

Small Farmers' Co-op Is Packing First Crop

By SALLY REMALEY
Herald Staff Writer

This season marked the initial production of a newly organized business . . . the first crop packed by a new 30-member small farmers' cooperative packing plant firm that is unique in Manatee County and elsewhere.

It was founded by a group of "little men" . . . those with farms too small to sell to the big packing plants . . . hence with no markets for their produce . . . without jobs, many who had been laid off, or otherwise had no incomes.

They could have gone on welfare. They chose, instead, to form their own business and their become self-supporting, by packing their own produce ready for market.

They have succeeded so well in their venture already that new others like themselves are bringing their produce, mainly tomatoes, for packing. The

business is already well on its way and those who organized it feel there is no limit to what they can do.

It wasn't easy at all, however. In fact there were so many difficulties in the way that there were many times the determined band of small farmers felt like giving up. At times like that, no matter how discouraging the picture looked, they picked in and tried harder.

The men first got together and organized in 1966 in an adult 4-H class taught by Emmet McCray. They decided that since their problem was finding a co-op to handle their small amounts of produce (each man farms from five to 20 acres, in contrast to the huge farm acreages common in the county) there was only one thing to do—start their own firm.

"The problem with the large packing houses is not one of discrimination against the small farmer . . . It's just that their machines are set up so large and fast that it's impossible for them to handle the small volume produced by the small farmer," explained McCray. For instance, it's impossible to keep small bunches of fruit straight. The machines go "haywire" if not fed a continuous, solid and steady large volume, once they start.

At first, there was the problem of finding a location—a base of operations. Then, after a search, the old long unused packing house on the north shore of the Manatee River in Palmetto was found, the men pooled their meager resources and took an option on the building.

The Manatee Opportunity Council jumped in and gave

them a much-needed lift and the new co-op became an agency of the council. Hearing about the ambitious group of small farmers who were anxious to help themselves instead of living off the taxpayer, all of the large packing houses in the area sent help by supplying equipment, advice and even technical assistance.

"It was like mama from Heaven," one of the small farmers exclaimed.

A great deal of their machinery was old, had been discarded, and was rusty and needed repair. They patiently did the repairing themselves, then cleaned away the rust, oiled and re-conditioned the various machines and got them working again.

McCray became the manager of the new co-op, Ernie Frucha the foreman, and Mary Buggs the secretary and bookkeeper of the new venture.

McCray, a retired 4-H teacher with 36 years of service behind him, is a community leader and board member of the Palmetto Community Center since it started. He also finds time to serve as a deacon in his church (St. John's Baptist) in addition to managing the co-op.

Frucha has had a great deal of previous experience in packing a packing house. Mary Buggs is an MJC student who couldn't resist getting involved in such an exciting project. Lynette Giam Curry became the firm's accountant. "They couldn't keep up with it," she said.

Manatee Opportunity Council officials agree that "this co-op is the best example we have ever found of hard-working people helping themselves. It's a remarkable accomplishment."

and the fact that they stuck together through the six years of effort it took to get the thing going shows the caliber of the fine men in the co-op."

New known as the Man-Hill (a combination of Manatee and Hillsborough) Farmer's Cooperative, the organization has become a member of the Federation of Southern Cooperatives, and this group has helped supply financing to set up and operate the packing house, along with also providing business and technical assistance while the house is running.

There's a great advantage, the men advise, to operating a small farmers' co-op. It gives the small farmer the advantage of standard packing with the goods being sold through regular channels by professional salesmen.

And it not only provides work for the 30 men who organized the co-op, but also provides employment for 50 people while the packing house is running.

The 30 small farmers involved want to give Emmet McCray all the credit. "He is the one person responsible for making this project work," they say. "He has researched, laid the ground work, organized and done a fantastic amount of work in bringing it about."

But Emmet McCray is quick to turn the spotlight back on the men themselves. "Without a great bunch of people like this . . . who want to help themselves . . . we wouldn't have the co-op today."

And you can see from their smiling faces that the glow of achievement means even more than the money to the new businessmen.

INDIVIDUAL FARMERS

FROM THE TASK FORCE REPORT

"At least since World War II, the land-grant colleges of this country have put their tax-supported resources almost solely into efforts that primarily have worked to the advantage and profit of large corporate enterprises, particularly the huge corporate farms and ranches, the vertically-integrated conglomerate corporations in agricultural production ... (etc)."

COMMENT

The vast majority of agricultural research and extension activities is equally applicable to all farmers and farm operations. New cultural practices, new varieties, improved insect and disease control procedures, quality control, and other projects concerned with production agriculture occupied a significant amount of the time of University of Florida researchers during 1970. And, by sheer numbers, a majority of the activity of the land grant community is of direct benefit to small farmers and family-owned corporations (since they are in the majority of those involved in production agriculture).

Even highly specialized machinery, although it might be too expensive for the small operator, is available on a loan or rental basis to all units involved in food and fiber production.

Almost one-quarter of the total time expended by extension in Florida is spent improving farm income. Examples of the extension effort toward small farmers and family corporate units are illustrated in the success stories which follow.

Tony Costa was one of the luckier Cuban farmers. He had to give up a lot when he uprooted his family from Cuba in 1959 and moved to Dade county—more than most of us realize since we've never experienced such a situation. But Costa had been selling products in this country for several years and had contacts here and a bank account.

"Of course, this would not have been possible if I had not been doing business in the United

Cuban Farmer Makes Rapid Adjustment With Help from Extension, Station

FARM IS USED FOR TOMATO FIELD TESTS



Tony Costa talks with Sub-Tropical Station tomato breeder James Strobel.

States," Costa says while motioning to his farm and packing house.

"But, with my money here I was able to buy land and start farming again."

Costa had farmed Cuban soil since 1933. His oldest son, Jose Antonio, was completing a degree in agriculture at the University of Florida at the time the family left Cuba.

Over the years Costa had grown oranges, rice and native

crops, and raised cattle. His last five years in the homeland were spent concentrating on tomatoes which were shipped to northern markets. He had a diversified knowledge of farming.

The Costas bought 30 acres of Dade county rockland in 1960 and started over. It is amazing what they have accomplished in three short years.

Dade county Extension agents and scientists at the Sub-Tropical Experiment Station at Homestead might call Costa a "model farmer". He is one of the main "co-operators" with the Sub-Tropical station which has established a system of field testing with various Dade county farmers.

Not a day goes by that Station vegetable specialist Jim Strobel can't be found walking up and down rows of trellised tomato plants planted in Costa's 15-acre plot. About three-fourths of the plants are experimental strains being tested by the Sub-Tropical station. Some of these strains are nearly ready for release, according to Strobel. "But, we can't really make a release without good field tests," he says. Costa's farm provides an excellent proving ground since he is careful to listen to recommendations from Extension and Stations advisers.

Or, Costa's farm is a favorite stopping point for assistant county agent Seymour Goldweber as he makes rounds or conducts visitors on a tour of Dade county agriculture.

Costa is concentrating on tomato production now. He packs and ships direct to northern markets a "vine ripe" tomato to compete with "hothouse" tomatoes marketed from northern farms during the winter. These vine-ripened tomatoes command a premium price.

Although tomatoes are Costa's bread and butter crop, the wise veteran was quick to diversify his Dade county operation. 1964 will be his third year growing Calamondins for sale as house plants to nurseries and greenhouses throughout the country. He has an avocado grove and markets between 5,000 and 6,000 boxes of the exclusive subtropical fruit each year. And, Costa is experimenting with several Cuban native vegetable crops including the yuca, casava, and Cuban sweet potato.

"With all of the people of Latin origin in the United States, I think we will have good markets if we can learn to grow these native crops here," Costa says.

The former Cuban farmer's goal for his Dade county farm—which is located only a couple of miles from the Subtropical station—is to have products ready for market on a year around basis. He explains that he can keep his field and packing house labor on a full time basis by diversifying and thus avoiding labor problems.

Costa undoubtedly gets much help from son "Joe" who is pre-

Her Problem Was \$3,000 Big

sently writing his master's thesis in agricultural economics.

The Costas have three other children. Their only daughter, Louisa, is married to Alberto Fontela. The other two boys are Michelangelo and Roberto Jose. Tony gives much credit for his quick adaptation to the strange soils and growing conditions of Dade county to Extension agents and Stations scientists.

"Every man must decide for himself," Costa says, "and I am able to make these decisions on what is best to do on my farm. Some farmers will make out and others will not. That is life."

His statements betray a satisfaction with his new home.



Jose Costa mans a station on the grading line, also shown below.



Mrs. X. was a homemaker with a problem—\$3,000 big. She had plunged the family into \$3,000 worth of debts without her husband realizing it.

Then her husband found out about the debts. He wanted his wife to continue to handle this family budget, but expected her to learn to manage money.

Mrs. X sought help from her county home demonstration agent. "How can we manage our money better?" she asked.

Lee County Home Agent Dorothy Classon had some answers. She discussed time and money management with her visitors, as well as consumer buying, and planning menus. She followed up this discussion by giving the homemaker bulletins on the subject to read. Mrs. Classon asked the homemaker to read the bulletins carefully, then come back for more detailed planning.

Two weeks later Mrs. X was back, bringing a collection of financial facts and figures she had tabulated. The figures showed that Mr. X provided a good income for his family. The problem was managing that income.

Together, the homemaker and the home agent set up a flexible money management plan for the family, including allowances for the children and funds earmarked to pay off the debts.

Recently, the homemaker reported that she is still working hard on her plan and has taken a part-time job to ease the financial situation. She says it will be at least two years before they will be "on top" again.

"If I had only known more about spending money when I first was married, I could have saved all this trouble. I surely want my children to learn more about managing money than I did," she says.

This was not the only family in Lee county experiencing severe financial troubles. Loss of a job or illness in many families would put them in the same position.

Realizing how acute this problem was, Lee county home demonstration clubs began a long-term program featuring consumer education and management. To really do justice to so comprehensive a program, the group decided to spend the first year absorbing background information. Money management was the first phase, with the emphasis on determining the goals and values of the family and making a money spending plan to attain these goals.

The study of credit buying—learning the types of credit, the advantages and disadvantages, and how to figure the true rate of interest—came next.

The last aspect studied this year was the general principles of buying: influence of advertising, trading stamps, use of labels.

These programs were presented to club members, 4-H leaders, special interest groups of young homemakers, before civic clubs, and on television.

Further information in consumer education in choosing pots and pans, household knives, and luggage was given on television.

Home demonstration club leaders are making a study of how to buy sheets, towels, slips and dresses.

4-H leaders are using this information as they work with 4-H'ers in each project area where it is applicable. A new project called "Dollars and Sense" is popular with 4-H club girls.

Six classes of 9th graders studied money management. They were encouraged to use this as a home project.

Since there is always need for help in managing money this program will be repeated year after year.

COMMUNITY DEVELOPMENT

FROM THE TASK FORCE REPORT

"Like its other partners in the land grant complex, the Colleges of Agriculture and the Agricultural Experiment Stations, Extension Service has not lived up to its mandate for service to rural people."

COMMENT

Extension agents have been accused in the report of being little more than chemical salesmen; Florida specifically cited because its agents urged farmers to adopt chemical weed controls. The report fails to continue its out of context quotation and point out that this type of control lowers the farmers overall production costs. Furthermore, to criticize the promotion of chemical controls because they provide profits to chemical manufacturers is like condemning plowing because it benefits machinery manufacturers. It's obvious, you cannot farm without plowing, and it should be just as obvious that you cannot grow crops where weeds, insects, and diseases abound.

Extension has been involved in rural community development for many years. The report criticizes extension because these efforts represent only 7 percent (their figure) of the total effort. It should be remembered that increased agricultural productivity and subsequent increased cash farm income (\$1.3-billion in Florida in 1971) is of direct benefit to the rural community.

In addition, Florida Extension programs have been aimed directly at community development in rural areas. Community development problem solving, utilization of natural resources, and other similar activity is demonstrated in the following examples.

Extension Teams With Public Housing Authority To Help People



Adapting Extension educational programs to the needs of people in Jacksonville's public housing areas involved coordination between two state agencies. Shown above are Mrs. Bernice Jackson, secretary to PHA director Ed Larimer (standing), Mrs. Bessie Canty (center), Assistant Home Demonstration Agent for special programs, and Duval Home Demonstration Agent Mrs. Nellie Mills look over map of one development.

One of the great struggles in an affluent society is helping all segments of the society improve their standards of living.

The challenge of helping low-income families live better within their means and improve their living standards is being met more and more by cooperation among federal and state agencies.

One excellent example of this cooperation is found in Duval county where the Agricultural Extension Service is working with the Public Housing Administration to better conditions among low-income families.

"One of the first things you must understand about the term 'low income,' is that all types of people are involved," says Mrs. Nellie Mills, Duval Home Demonstration Agent. "One of the big low-income groups is made up of retired people who must learn to live on limited Social Security payments."

Mrs. Mills points out that illness, with accompanying financial reverses because the bread-winner is incapacitated, is another contributor to the low income problem.

In many cases, people must completely change their way of living and learn new methods of using the money available.

Early in 1963 the Federal Housing Authority contacted the Housing Authority of Jacksonville and encouraged that non-profit, municipally administered organization to ask for help from Duval county's Extension office. (Similar contacts were made in several other Florida counties.)

Ed Lorimer, director of the Jacksonville PHA was well acquainted with Mrs. Mills and her work, and telephoned her almost immediately. Soon after this call Lorimer and members of his staff met with Mrs. Mills and with Mrs. Bessie Canty, Duval assistant agent in charge of special programs.

Lorimer told the home economics specialists there was a great opportunity for Extension to help a large number of people in three Jacksonville public housing projects involving several hundred units.

Since people living in the public housing units were of limited incomes (applicants for housing must meet certain maximum income requirements), instruction in homemaking, use of household appliances (many of which were completely unknown to some of the residents), and meal planning to fit a tight budget were given highest priority. Extension had the resources to set up educational programs along these lines.

Mrs. Mills and Mrs. Canty admit the extreme need for help probably overshadowed all other considerations—such as taking several months to plan an approach. They accepted the challenge to move ahead immediately relying on the housing authority's ability to contact people.

"We weren't entirely satisfied with the average age of the people who attended the special interests schools set up in the next few weeks," Mrs. Mills says. "Of course we wanted more young homemakers. But we expect more young people in future meetings by having more time to raise interest in advance."

Mrs. Canty's meetings in two of the housing projects, Blodgett and Durkeville, were more successful in attracting young homemakers.

The first series of "special interest" meetings lasted six weeks. (Special interest groups is the term applied to educational programs not carried out through regularly organized Home Demonstration clubs.)

The subjects covered in the 1963 six-week series were designed for two purposes in many cases. Since public housing is a long-term investment for Jacksonville, the authority's management is always interested in having units well cared for by tenants. Lessons on making housework easier stressed a good attitude toward housework, methods of improving skills, and how to save time, money and energy. By making housework easier, both the people and the housing development benefited.

Since housewives attending the training sessions were interested in ways they could make their food dollars go further, the Duval home economists found a receptive audience for some ideas on good nutrition as a way of maintaining better health.

Some of the people were totally unfamiliar with many household appliances. All homes in the development projects have fully equipped kitchens, (furniture for the rest of the house must be supplied by the tenant) but not all of the tenants knew how to use this equipment and it was either being misused or not used at all. Some tenants thought they could save money, for example, by turning off the hotwater heater at night. This is one of the examples that Lorimer discussed with Mrs. Mills and Mrs. Canty.

Other programs in the six-week series covered control of pests inside and outside the home, and safety in and around the home. Both subjects were popular.

When the home economics specialists first met with their groups, they discussed some of the subjects to be covered, but opened the door for members of the groups to express their needs and problems. This has given the Extension agents a better insight for planning future programs within the housing developments.

This is not the first example of work with low-income groups in Duval county. The Home Demonstration staff has several "special interest" groups in connection with churches, schools, and the Welfare Department, and often reaches into this area through an active 4-H club program.

Mrs. Louise Lewis and Mrs. Inez Walden, assistants to Lorimer in management of the three public housing projects involved, worked closely with Mrs. Mills and Mrs. Canty in carrying out the programs.

Work with public housing authorities is in progress in other counties including Dade, Pinellas, Volusia, Walton, and Hillsborough.

RAD Helps People Help Themselves

● Rural Areas Development is a term describing many programs of resource development which are being conducted by organized local groups.

Rural Areas Development might more properly be described as a concept or set of ideas than as a program.

Rural Areas Development involves more efficient use of local resources and resources available from outside the area. Local resources include not only the obvious physical resources—land, water, minerals and climate—but also resources in the form of institutions which provide services, and human resources which are manifested through the capabilities of people themselves. Resources from outside the area which may be brought to bear on local economic or social problems include capital, technical information and services available from various agencies and organizations.

Usually when local organizations combine forces to form Rural Areas Development committees, they seek to establish (1) efficient, profitable farms, (2) rural industries and businesses, (3) training and retraining programs for people not needed in agriculture, (4) adequate public facilities, and (5) expansion of recreational facilities for both rural and urban people.

Florida counties which have enjoyed the greatest success in rural development efforts have been those with the broadest support from existing county organizations. Formation of an overall development council—with membership from each organized group within the county—fosters a united attack on problems that might be retarding growth or progress.

The typical Rural Areas Development council functions through subcommittees, each of which concentrates on specific problems. They are established when justified by need and disbanded when the need no longer exists. The usual county RAD

committee selects, from its group, a steering committee of executive board composed of five to seven members.

Within each county, employees of U. S. Department of Agriculture agencies compose a technical action panel which stands ready to assist on all problems, falling within their area. These technical action panels coordinate the work of the various agencies of the U. S. Department of Agriculture and make USDA programs more effective.

The State Rural Areas Development Committee is comprised of about 30 agencies and organizations interested in progress throughout Florida.

A good example of inter-agency cooperation for progress within one county last year was the expansion of a food freezing plant sponsored by the Rural Areas Development committee. The proprietor obtained a loan of \$52,000 from the Area Redevelopment Administration and a Small Business Administration loan for \$67,500. In addition to providing employment within the plant for about 40 people, this facility provides a market for vegetable growers in this and surrounding counties. This project will have a direct economic impact of more than \$100,000 annually.

In Northwest Florida, ARA has provided funds for a feasibility study of the opportunities for economic operation of cement and lime plants. They are also providing funds for studying the feasibility of a vegetable processing plant recommended by the Jackson County RAD Committee, and a port facility on the Apalachicola River near Sneads. A grant has been approved for studying the feasibility of a clay products plant in Liberty County.

One Suwannee County project was the establishment of a new plant for mining and processing limestone. This plant employs 10 men with a payroll of about \$40,000 annually. Its development was a direct result of increased use

of dolomite limestone in Suwannee County which was a result of work by the RAD committee. The Live Oak vegetable curb market, another project of the Suwannee committee, provided an outlet for the produce from about 125 farmers during 1962.

One of the ways Rural Areas Development committees are encouraging increased farm income is through introduction of new crops or enterprises. In Holmes County, new varieties of peaches give good promise of increased income. In Suwannee, new crops include gladioli, cornlets and sweet potato plants. In Jackson County, four offices for watermelon buyers have been established. A new watermelon marketing center has been established in Washington County.

RAD committees have found that by combining forces they sometimes are able to achieve more progress on inter-county problems. The county committees of Walton, Holmes, Washington, Jackson, Calhoun, Liberty and Franklin Counties comprise the Northwest Florida Development Association. The Suwannee River Area Development Council includes Madison, Jefferson, Hamilton, Suwannee, Columbia, Lafayette, Gilchrist, and Dixie Counties. The latter group is supporting a comprehensive development plan for the Suwannee River which will involve 12 recreation projects costing a total of \$8,242,100.

In Florida Rural Areas Development programs, the Agricultural Extension Service has major responsibilities for providing educational and organizational assistance. The County Extension Agricultural and Home Demonstration Agents help locate and train local organizational leaders. They also provide assistance in forming organizations for development work. The Extension Service serves the committees as a source of educational materials on various subjects, and helps the committees locate specialists and technicians needed on specific problems.



Improving family living is one of the aims of the Home Demonstration program. Marion County's Negro home agent has worked closely with the Regional Foster family,

shown in their home above. Pictured between Mr. and Mrs. Foster are Regional Jr. and Roderick. The little girl is Karen Olson, the daughter of a neighbor.

Marion County Clean-Up Campaign Nets Results

For years people in Marion County had talked about poor sanitation, health problems, and the increasing number of farm and home accidents.

But nobody did anything about them—that is, not until this year when some 50 Negro community leaders launched a clean-up campaign. Their target?—To rid the county of mosquitoes and cut down mounting farm and home accidents.

The group soon learned it was necessary to call on other committees and leaders to do specific jobs. Getting volunteers was no problem. Barbers, undertakers, businessmen, doctors, teachers, ministers, domestic workers, and laborers came forward, ready to help.

Committees—seven of them, to be exact—rolled up their sleeves and went to work. A steering committee planned and directed work to be done. It set a date for completing the campaign. The job of the beautification committee was to encourage families to plant lawns, trees, flowers, and to banish all rubbish, tin cans and refuse around the home.

Keeping the public informed of plans and progress kept the publicity committee busy. Meeting with city and county governing boards to discuss plans of Operation Clean-up and to request their assistance in implementing the plans took many hours of the contact committee's time.

No aspect was overlooked. The home improvement committee gave training in interior decoration to adults and young people. And, finally, the evaluation and survey committee measured results and recommended further work to be done.

All county and city boards, professional leaders, businessmen, and civic organizations endorsed the drive. City and county governments furnished trucks to haul away rubbish. In six days 325 truck loads of refuse were taken to disposal points.

More than 1,500 shrubs and trees were donated by individuals and groups for community beautification. Thirty-one dilapidated buildings were razed. More than 750 homes were improved by installing bathrooms, building adequate storage, setting driveways and walkways, adding rooms, hanging drapes, building and repairing steps, painting and re-roofing, screening, and landscaping. In an effort to control mosquitoes, stagnant water was removed. Building materials, paint, and other supplies were secured at a discount.

The new agricultural building was an inspiration to members of the community to improve their surroundings. After 4-H club members and adults helped landscape the building, they put into practice what they had learned about landscaping in their own yards and surroundings.

Operation Clean-Up extended to cleaning and beautifying community cemeteries and getting running water installed in them.

The Agricultural Extension Service cooperated all the way from start to finish, contributing counsel, know-how, and educational aids to make the operation a success.

And successful it was. So successful, in fact, that the campaign will be continued another year with the same objective—better living.

THE ENVIRONMENT

FROM THE TASK FORCE REPORT

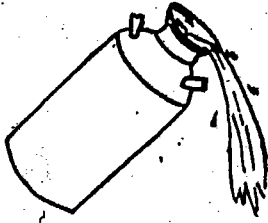
"The land grant community currently is front and center with a recitation of concern and a display of research projects designed to save the good earth." AND

"Apparently it is some sense of guilt that compels the community to rush forward with a show of concern ---"

COMMENTS

Florida agriculture, led by the Institute of Food and Agricultural Sciences, has for years been concerned with promoting environmental protection and preservation. Whether the project involved non-chemical insect or disease control techniques, new disease-resistant crop varieties, or use of less-persistent chemicals, researchers have long been closely associated with efforts to reduce environmental pollution, particularly where agriculture is involved.

Examples of only a few of Florida's environmental protection programs follow.



DON'T LET ANTIBIOTICS GET INTO YOUR MILK

W. A. KRIENKE, *Associate Dairy Technologist*

Penicillin and other antibiotics, although a real boon to modern medicine, may pose a threat to the consumer's health and complicate dairy plant problems if the drug gets into milk.

While antibiotics have proved valuable in treating mastitis, there are 2 specific reasons why herd owners should see that milk from treated cows should not be allowed on the market. One reason is based on a research discovery at the University of Florida; that is, that milk from penicillin-treated cows will get sour. Therefore, it cannot be used to manufacture certain dairy products, such as buttermilk and cottage cheese.

This is one reason for keeping all antibiotic-containing milk from the market. Perhaps more important is the fact that many people are allergic to certain of the antibiotic drugs. This has prompted the Food and Drug Administration to outlaw antibiotics in milk. Penicillin has been notorious in this respect. People with sensitivity to antibiotics will often have a severe skin rash and develop other symptoms.

Therefore, the FDA has ordered that "the presence of antibiotic drugs in food intended for human consumption or the direct or indirect addition of such drugs to such foods may be deemed an adulteration." This means that an entire tank truck load of milk could be condemned and dumped if a check showed antibiotics were present.

Research at the University's Dairy Products Laboratory and the dairy research unit revealed that milk from one treated cow would ruin all the milk from 80 healthy cows if combined in the supply. This situation is even more serious today because of increased drug potency and the combining of drugs to make a single dose.

These drugs in milk that is to be used in manufacture of buttermilk cause it to fail to sour. As little as 0.1 unit of penicillin per milliliter of milk will prevent cultures from growing and developing lactic acid, the essential constituent of buttermilk. In fact, dairy plants cannot use such milk for any cultured milk product. Where they have tried, failure and total loss of the milk was the result.

Every modern dairyman should know that milk from a mastitis-infected udder treated with antibiotics is not to be put in the supply delivered to market. The FDA specifies that milk from treated segments of udders should be discarded or used for purposes other than human consumption for at least 72 hours after the last time the drug is injected into the udder. This means the milk from 6 complete milkings after the last treatment must be dumped. If only 1 quarter of the udder is treated, only the milk from it needs to be discarded. However, if the antibiotics are injected into the cow's muscle, then all milk must be thrown out.

The dairyman has a responsibility to take 2 steps in regard to this important issue of antibiotics in milk. First, he should become aware of the severe consequences that may result when milk from treated cows is mixed with milk to be sold.

Second, he should design a system that can function without error on the part of the dairy workers. Where herds are large, treated cows should be separated from non-infected animals. Some way of marking the treated cows would help to indicate when the cow is to be returned to the regular milking herd.

All treated cows should be milked last where pipeline milkers are used. This milk should not flow into the storage tank. Where vacuum tanks are used, it will be necessary to provide a small extra can or tank for collecting such milk. Or an alternative would be to hand-milk the treated cows.

Dairymen are in general agreement that antibiotics are beneficial for treating mastitis. They would suffer a hard blow to the milk check if they had to do without them.

The progressive dairyman realizes that prevention and good herd sanitation is more important than curing the infection after it gets a foothold. These actually constitute the first line of defense against the serious disease.

Congested areas are to blame for much of the spread of mastitis from cow to cow. If the cattle area is cramped, the dairyman should enlarge the space. Stumps and other obstructions should be removed from areas

PESTICIDE RESIDUES -- Can We Avoid Them?

WM. G. MITCHELL

Residues are a big question mark in the minds of many Florida vegetable growers. But, thanks to research results, much of this question can be removed.

Scientists at the Florida Stations have set up the chart that accompanies this article to suggest safe time intervals between the last application of pesticides and harvest of the fresh vegetables. From the standpoint of the average grower, these recommendations are the most tangible and practical results of a series of experiments in progress since 1930.

The Federal hearings on pesticides and their residues in 1950 pointed up for Station scientists the lack of information on this vital problem. While there was some information available from other states on residues, these were usually not applicable to Florida because of differences in climate, rainfall, crops grown, insecticides used, and the like.

SUGGESTED TIME INTERVALS IN DAYS FROM THE LAST INSECTICIDE APPLICATION UNTIL HARVEST.

(Based on results of Station residue studies 1931-53.)

Vegetable	Toxaphene	DDT	Dilan	Para	EPN	Mala
Cabbage	21	14	21	7		7
Ch. Cabbage	21	14	21	10*		7
Snap Beans	14	NH	5	8	8	8
Tomatoes	5	14	8	8	8	8
Turnip Gr.				14		7
Mustard Gr.	NH			NH		
Lettuce		NH	21	14		14
Spinach			14			
Broccoli	21	NH	14	10		
Escarole	NH		21	14		
Sw. Corn (ear)			5	5		
Sou. Peas	5		5			
Okra	**		**	8		
Ir. Potatoes		Plant time				
Strawberries				8		
Squash				8		
Cauliflower	21	14		7		
Celery	21	14*		7		

*Additional work required. NH Not recommended.
**Up to flowering

So researchers decided to begin accumulation of data on the amounts of toxic residues left on fresh vegetables going to market from our state. Some preliminary studies were set up at the Central Florida Station as early as 1930.

In 1951, the Horticulture Department established a pesticide residue laboratory. Dr. R. E. Waites, an entomologist, and Dr. C. H. Van Middelgem, a biochemist, were hired to undertake this work.

Since that time, these and other workers have completed a total of 63 different field experiments on insecticide residues on fresh vegetables. Seven more experiments are now in progress. They have tested the following vegetables: cabbage, Chinese cabbage, snap beans, tomatoes, turnip greens, lettuce, spinach, broccoli, escarole, sweet corn, Southern peas, okra, Irish potatoes, strawberries, squash, cauliflower, and celery.

RESEARCH REPORT

Insecticides tested include toxaphene, chlordane, DDT, Dilan, parathion, malathion, EPN, Drazinon, and Systox. Results on the latter two are still inconclusive. Seven of the stations in the Experiment Station system have cooperated in these tests.

A very important result of this research is that we now know that Florida growers can get protection from insects and other pests—without exceeding Miller Bill tolerances—all season every season. They can do so by using the right insecticide or combination of insecticides at recommended rates and timings.

For example, a cabbage grower might be able to use DDT or toxaphene to control a certain insect until 14 or 21 days before harvest time. Then he might be able to kill this pest with parathion or malathion—which break down much more rapidly—until 7 days before harvest. Toxaphene could be used on snap beans if effective against the specific insect pest until 14 days before harvest. Then malathion or parathion could be used until within three days of harvest.

Residue research is extremely complex. For example, one of the problems that have constantly beset the researchers here has been that of adapting and modifying available commercial methods for residue determinations on our Florida vegetables.

Another problem has been that of taking valid and representative field samples for residue determination. The Florida researchers have done considerable work on this problem.

*Dr. C. H. Van Middelgem (seated) and Dr. R. E. Waites, using a spectrophotometer, check insecticide residue samples in the pesticide residue laboratory at the Florida Agricultural Experiment Station, Gainesville.



Pesticide Lab Dedication

□ WITH the dedication of the \$212,000 Southern Experiment Stations Pesticide Research Laboratory, a new era in cooperative research got underway June 19 for 13 southern states and Puerto Rico.

Speaking to agricultural leaders, including station directors from the cooperating states, Rep. D. R. (Billy) Matthews said some \$150,000 of Regional Research funds had been allocated to the Southern region from an increase in appropriations authorized by Congress.

This money, he said, went to the Florida Station for construction of this new laboratory.

"In addition, the Southern directors voted an additional \$62,000 to Florida out of their 1964 allocation which gave Florida a total of \$212,000 for this pesticide facility," Matthews said.

In voting this money the other 12 states and Puerto Rico gave up their share of these increased funds. "This demonstrates an important attitude which shows Congress and other interested persons that state stations can operate effectively and in real cooperation with the funds allocated by Congress," Matthews declared.

During his talk the congressman emphasized the need for chemical pesticides but said precautions were necessary in their applications.

Matthews pointed out that damages from pests, including the cost of control, amount to

Ed Fisher

\$10 to 15 billion yearly. "Despite other methods of pest control, I'm convinced we must still use pesticides, or else we would not be able to feed the public with the variety and inexpensive food that is available to them today."

He said he was confident that the pesticide research to take

place in the new facility will help answer the questions to two basic problems — residues remaining after a pesticide is applied, and the possible misuse of pesticides or herbicides at the time of application.

Following the ceremonies, officials were taken on a tour of the new facility by Dr. J. R. Beckenbach, director of Florida's Agricultural Experiment Stations, and Dr. C. H. Van Micklelem, biochemist in the Food Technology and Nutrition Department, who will be in charge of the lab's operations.

The Florida-based research laboratory will cooperate as a regional research facility under the administration of Dr. Beckenbach for the benefit of the entire South. Federal and regional funds will be allocated for its operation.

Officials were welcomed by Dr. H. H. Philpott, the University of Florida's vice-president. Dr. H. H. Wilkowske, assistant Experiment Stations director, followed him with a rundown of the proposed program for regional research.

According to Dr. Beckenbach, the pooling of funds and talents by experiment stations of the cooperating southern states and Puerto Rico is a new approach for strengthening regional research.

The laboratory will be staffed by five researchers and 12 technicians who will conduct research in the pesticide residue problem area.

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ENP - LOW INCOME

FROM THE TASK FORCE REPORT

"In Florida, work with the rural poor accounts for 5.3% of the state Extension effort, over one-half of which is spent in the Expanded Nutrition Program."

COMMENT

Florida Cooperativa Extension employs 386 state and county professionals, and 301 para-professional aides in the Expanded Nutrition Program. It is obvious that if 45% of Extension's full-time employees are devoting their time exclusively to working with low income families (more than one-third of which is strictly rural poor) the 5.3% figure is in error. Since 1969, 386 program aides have worked with over 20,000 families and reached over 100,000 persons, including 553 migrant families involving over 3,000 persons, over 800 families of Spanish American origin and over 100 Seminole Indian families.

Examples of the Florida Expanded Nutrition Program in action follow in the form of newspaper stories and testimonials from para-professionals as well as program participants.

Gadsden County Times

May 4, 1972

SECOND SECTION

Page 7

ENP: teaching the hard-to-reach

The Expanded Nutrition Education Program (ENP) in Gadsden County is one year old, according to Mrs. Marjorie Gregory, and she is proud of it. Last spring, the county, through the University of Florida's Cooperative Extension service, became part of a national effort to upgrade the nutritional status of its poor citizens. Towards this goal, Congress appropriated funds through the U. S. Department of Agriculture to set up the ENP project. In every state, Puerto Rico and the Virgin Islands.

Seven aides employed

In this county, the project has been under the supervision of Mrs. Gregory, the local Extension Home Economics Agent.

The employed seven aides, who trained intensively for three consecutive weeks. Thereafter they have received weekly in-service training arranged for and conducted by Mrs. Gregory.

The task of the aides has been to teach homemakers on a one-to-one basis in the home situation. They have worked with families in Hinson, Havana, Quincy, High Bridge, Grétna, Sawdust, Providence, Greensboro, Pine Grove and Scotland.

This method of teaching has been most successful. During this year, one families have been contacted by the Extension aides. Over 200 of these have become enrolled families, meaning that certain data has been collected and up-dated and that each family has had at least one to three visits per month by an aide.

When an aide visits a homemaker she is prepared to offer lessons in budgeting, food preparation, meal planning, food purchasing and general household management. Since the aides are aware of the other problems that are too often faced by this segment of society, they can also make referrals to appropriate agencies.

In addition to visits in homes, homemakers are invited to attend at least one class each month, taught by aides.



ENP staff

Here are the seven ENP aides and their supervisors, seated in front of a "birthday cake" to celebrate the program's successful first year. Standing, left to right, are Mrs. Elma Cummings, Mrs. Willie Mae Washington, Mrs. Anna Williams, Mrs. Ola Davidson and Mrs. Bernice Forcher. Seated, left to right, are Mrs. Marjorie B. Gregory, Mrs. Estelle Forehand, Mrs. Betty Jones, and Mrs. Robbie Shephard.

drinkers. Many children fix the milk for the family.

The Expanded Nutrition Program has made an impact on the staff, as well as the homemakers. The seven aides have used every opportunity to learn and to teach homemakers in their respective communities.

They have changed many of their own food habits, buying habits and cooking methods, and become so enthusiastic about these changes that others just had to change. There are many other evidences of improvement resulting from this program.

ENP is a new method of

teaching for Cooperative Extension and has introduced us to a new audience. Several service organizations and the Quince Orchard Club, church women and local homemakers clubs have helped this program by furnishing some much needed equipment for families to use in order to learn. County lunch rooms helped by donating large containers for safe storage of food away from roaches and rats.

Recently the aides have received intensive training on

wise use of food stamps and are busy helping homemakers plan food needs of the family, make grocery lists and shop wisely in the stores, as well as cooking.

All needy families in our county cannot be reached by just seven aides, as each is only employed for twenty or thirty hours per week and are not full time aides, but the changes they have already made in some families is most encouraging. More aides and more working hours for each is the program's greatest need at this time.



-Helping with Family problems
 -How to breast feed a baby
 -Migrants

ESPECIAL REPORT
 DADE COUNTY
 December 1970

This is the month of December. The year of 1970 is almost over. Is time to take inventory again. I remember last year when I did my inventory... I was very pleased with myself. The number of families that I was working with had increased notably.

This year my files are so large that I did not have time to read all of them. (I really did not have to, you know your families my memory). But there are so many this year... And because two years had gone by so many of them show notable changes. It is hard to single out one.

But I was asked to do so. I am taken the record of a girl wish has learned nutrition and more...

It was Nov. of the year 1969. I was working at the prinston labor camp. It was a cold morning; some one knock at the door of the cabin where I was. And the lady asked if she please could speak with the lady that teaches to cooking. The way I was described was funny... So I told this lady that as soon as I finish with the lady I was working with at that moment I will come over her. O.K. she replaid.

My surprise was great when I got to my car and she was waiting there for me. She was pregne; her dress almost did not fit her. She looked hungry and tired. I smile and asked her wish was her cabin... No, I do not live here in the camp. I came here looking for you because my girl friend Mrs. "Y" told me you will be working here this morning so my brother got me here. Well, we do not want to just stand here do we...? sit in the car and we will park some plase were we can talk, she looked so desperate...

She began to talk once we were settled. I am goen to be very honest with you... See N. I was living with this man. He is real nice and very handsome. We like each other very much.. But my mother had told me he was no good and I did not listen. I was to much in love to realize she was right at this point. Well we were happy till I told him I was expecting a baby. He just do not wanted any part of it. And finally he got out and did not come back. My brother has helped me some but I have a real problem... Have you got any money? I asked her. No ma'm? See I was staying at Mrs. "Y" and she is nice but no room there. She did not have to explain that to me. Mrs. "Y" is the mother of 18 children that speaks for itself... Mrs. "X" I want to help you so bad... But in my job we are not social workers. We are Nutrition expansion. So I teach to cook. But what I can do is reffer you to those people whoos job is to help people that need other things like you. Have you seen a Dr. ? No. Never. When is your baby do? Next month I think.

Family Success Story - 118
 Florida

Family Success Story - 118
Page 2

I got a paper and wrote down the address of the wealfare center in Cuttler Ridge. I wrote down Hosing, and health departments. I also give her my full name and telephone number. Have you had breakfast? Well, I got out of the house before Mrs. Y seve it. But with fifteen cents I had I got a coke...

In the cold weather sitting in my car Mrs. X. got her first lesson about nutrition. And the difference there is in nutrition value between fifteen cents in a soda and ten cents in milk.

A week later she called me. And by then she had an address. I did not loss any time and got there the same morning she called me. Now wealfare was helping she was under a Dr. Care and had a cabin she could call home.

That day I worked with her in showing her the diference in cooking methods, with the commodity foods we mixed milk and flavored with vanilla and sugar.

She had a natural instinit towards, cosmetology. So with an used hair dryer some one donated she began her little business people will give her some donations for fixing their hair. I got her to write her mother in Puerto Rico and explain to her what her cituation was. She was afraid. But I convenced by asking her if her baby needed her what would she do? I would kill for him. Your mother loves you just as much... By thanks-given mother was here by her daughter. And the baby by the day of that-given decided to come to the world. Now the mother with some of our recipes was cooking for some of the people that worked all day. And had a few costumers. Live was hard for the two women... But God was there with them. When Mrs. X came home from the hospital the mother called one night. My daughter needs you please come...

Well it was a sad picture... Mrs. X crying and almost screaming of pain in her breast, the baby crying to, and the mother just said I don't know what to do... I had mine and never this happend.

I do not know how to fit him... Please help me. So I made her clean her breast, calm down some the baby. Made her relax and then with both of them I laid in bed and teach her to fit her baby. This by the way has not been the first case where the mother did not know how to fit her baby.)

Now was summer and people again like the birds beging to move on where they could find some food. With the rest went Mrs. X. We said goodby to each other and she promised not to forget all the long talks that we had. And I may said she knows now nutrition much better she realized herself. She was fixing menus with such eesy, she looked for the four grups even when feeding her baby.

BEST COPY AVAILABLE

Deep inside I knew I will never see her again. But this is my work I say to myself.

Can you know the reward it was for me to get a letter from her, telling me she was once again making aliving cooking in her house. "People think I am a good cook, American stile." She wrote. Again like the birds she has come back., But in this ocation she not her son needed waifcare. She still cooks and is saving to go cosmetology school. I guess in January she will begin her classes. Only she had some one told her that family service may help her pay for the course. So she applied and still waiting for an aswer.

No longer looking for a good looking S.O.B. she said. I want a good man. And till I find a good one I can support my baby and I. Last time I went to her babys first birthday. She bake his cake. am proud of her. What is your opinion...?

RANFT

4-H

FROM THE TASK FORCE REPORT

"The fact is that 4-H might be an adequate youth club, but it is not doing much that seriously promises to make a change in the rural plight. It is a frivolous diversion of \$72-million tax dollars."

COMMENT

The task force report overall decries the "crumbling of rural America" which is essentially a problem of economic change. It seems impractical to expect or even to devise programs for any youth organization that would have a great deal of effect on the economic stresses.

4-H essentially has been an organization that concentrates on the personal development of young people, whether that be projects oriented toward rural life, or those aimed primarily at good citizenship, leadership, character development, health, and service to community.

Attached are a few examples of the so-called "frivolous activity" of 4-H.

In addition to general youth work, 4-H activity in Florida is aimed at improving the nutrition level of children from low income families in urban areas. Programs in six urban counties realized an outreach of 5,410 young people during 1971.



4-H Provides New Life For Homeless Children

Richard was a quiet, unsmiling, sullen boy when he arrived at the campus of the Advent Christian Home on the peaceful banks of the Suwannee River.

At age 11, he had spent six years in a home for children, away from the loving care of real parents—a love for which there is no real substitute.

In the beginning, the beautiful rural setting seemed to make little difference to the slightly-built youngster who at age 5 had been taken away from his mother and made a ward of the court. Perhaps he thought an orphanage was an orphanage, any way you spelled it out.

Greetings from other youngsters or from workers at the Advent Christian Home were met with cold response or were ignored altogether.

"You never knew if he would say hello or not when you passed him on the campus," according to Pomeroy Carter, director of the home.

Richard's older brother arrived at the same time, but was more outgoing. He began participating in activities. Among them was a contest in which the older brother won a calf as first prize. But, since the brother was interested in other things, Richard inherited the calf.

"That was the beginning of Richard's change," Carter says. "From the moment he got the calf, all of the love and affection that had been stored up so long spilled out."

Richard and his calf became almost inseparable. He babied and combed and cared for the animal constantly. Soon he began entering in county fair competition and winning awards, praise and recognition.



Later, Richard adopted a beef project and showed a grand champion. These experiences brought Richard into direct competition with other youngsters, and through hard work he was able to gain recognition and self confidence. The shy and unfriendly boy began to find a place in society among other boys and girls. He became president of his church Youth-Fellowship and of the District Youth Fellowship. He was elected to the highest office in his high school class and participated in athletics.

And thus a tiny calf accomplished what all the other children and the well-trained workers at Advent Christian Home could not—bringing a boy to grips with a society that had treated him badly.

All of the boys and girls who live at the Advent Christian Home, located on 610 acres a few miles west of Live Oak, have different personalities. But they do have one thing in common. They have been kicked around by life, and for all intents and purposes, they have no real parents to take care of them.

Children are accepted at the home — when there are vacancies—on the recommendation of a pastor of the Advent Christian Church. Often court judges who have been forced to remove a child from its natural home, call these ministers for a recommendation:

They come from homes racked with immorality, torn asunder by poverty or alcoholism, or destroyed by accident or illness.

Richard is one of about 30 children who live at one of the most unusual homes in the country—a combination foster home for children and retirement home for senior citizens.

There is practically no mixing of the two groups. In a way, they have common problems; the rest of the world has gone off and left them and they have banded together to cut out a new life. But there is one major difference. Whereas the senior members seldom leave the campus, the children only use Advent Christian Home as a substitute for a real home and family. They go to regular public schools and churches, and take part in community activities.

In marked contrast from some institutions for children, the boys and girls are challenged to make a place for themselves in the community.

This is where the 4-H Club system has come to play a major role. It is a part of the community activity encouraged by the leaders of Advent Christian Home.

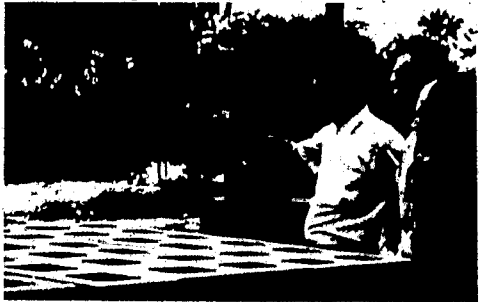
"About 95 percent of our children become associated with 4-H," Carter indicates. "We, and

they, consider this the most popular activity — especially among the boys.

"Since we have 610 acres and this is a farm setting, it is a natural activity. So many of the projects couldn't be better suited if they had been designed specifically for us.

The campus has 25 acres and lends itself to home beautification projects. Since girls must help carry the load in the kitchen, cooking and home improvement are natural activities.

The wooded area is ideal for soil and wildlife conservation and entomology projects. Youngsters get practical experience in electric and safety projects through the home's maintenance crew.



Pomeroy Carter, director of the Advent Christian Home, points to excavation area for new dispensary in picture taken early in 1964. With Carter are John Moxley and Assistant County Agent Fred DeVene (foreground).

Carter believes that 4-H has been a big help in getting the children to take an active part in community activities.

The young and personable chief administrator, who has degrees in sociology, theology and social work (the latter from Florida State University), says every effort is made to provide a life just like it should have been at home.

The children live in cottages—there are three on the campus—which hold a maximum of 12 boys or girls plus house parents. Meals are prepared in a central kitchen, but are catered to the cottages where the housemother puts them on the table.

The comfortable rooms are designed for two, affording as much privacy as possible.

The children range in age from the second grade to a sophomore in college who still maintains residence at the home. The college student

A flight of jet bombers "attacked" 4-H Camp Timpochoe one overcast day last summer.

Thus began one of the most unique summer encampments in the history of Florida 4-H work—unique because the program provided not only that recreation typical of summer camping, but instruction in the urgent business of disaster survival.

"Victims" of the mock bombing attack were 140 Santa Rosa county 4-H boys and girls, their adult leaders and Extension agents. And, although they didn't know exactly when the attack would occur, every camper expected it and was instructed how to "survive".

The plan to carry out a civil defense program during the county's annual encampment was undertaken by the county 4-H Council and local club leaders. Weeks were spent planning every detail, involving leaders within the ranks, and city and county officials who were not so familiar with 4-H work.

Perhaps the greatest challenge faced by the planners was adapting survival instruction to the comprehension level of boys and girls between ages 10 and 15. But the planners did have one big advantage with this age group: the youngsters were much more enthusiastic and eager than the average adult (who tends to be somewhat apathetic on the subject of civil defense survival).

Council members wanted to maintain a recreational flavor to the camp, and were sure this could be done by following the usual practice of six classes of instruction each morning. Adult leaders were assigned as class guides so they would receive benefit of the survival instruction.

From among the ranks of the campers, one boy and one girl were selected as camp directors. Other camp jobs included operations, communications, transportation supply, and emergency medical aid and chaplains, and provost marshalls. One boy and one girl were given each of these assignments.

Ben Henry Pooley, county Civil Defense Director, and Dr. A. E. Harbeson, county Health Doctor, were asked to help plan two major objectives of the program.

Pooley supplied identification helmets and arm bands for the camp leaders, and arranged for the mock bombing attack with operations officers at Eglin Air Force Base.

Dr. Harbeson accepted responsibility for teaching first-aid classes. He designed classes along the same lines as the county's regular medical

Youngsters Dodge Bombs During Unique Summer Camp

Nurse teaching medical self-help course for youngsters.



self-help class program, and had junior completion certificates made.

Two technicians with the Soil Conservation Service, Alton Harris and Leonard Finch, agreed to instruct 12 groups about radiation, and how to use the geiger counter, dosimeter and gas mask. These classes were highly popular with the campers.

Camp Timpochee's regular summer staff redesigned their activities to fit the special camp's theme, "Learn Today, Survive Tomorrow".

One major problem was providing "idle hours" activities to simulate the confined life of a fallout shelter.

Cabins were designated as fallout shelters, but campers were confined to shelters only during one alert. When the attack occurred, civil defense officers assembled at headquarters for briefing of their responsibilities during attack or disaster.

As part of the instruction, an "A-type" fallout shelter was constructed at the camp. Although scaled to one-half size, it still would accommodate one adult and one child. Primary purpose wasn't to show size, however; the shelter was heavily sandbagged so instructor could show the dense amount of cover needed for fallout protection.

Santa Rosa county's civil defense camp wasn't simply a "new wrinkle" to creating interest in 4-H camping. The entire plan was based on providing better community education at every opportunity. And certainly, that education was more real and palatable in combination with the natural attractions of camping.

Community response "was gratifying", according to County Agent S. C. Klerce. The camp was widely covered by the press and magazines. Reporters obtained copies of the program and wrote advanced news stories. Many were on hand to cover activities including one representative of a national farm magazine which carried a story in its September issue.

Assistant county agent Hilton Meadows believes the camp helped bridge a gap between adults who had received civil defense training and the county's youngsters. It provided access into many homes where adults had not been exposed to survival training.

Many other people were reached by the Extension agents. Klerce received excellent cooperation from a local radio station announcer who, himself, had spent two weeks in a fallout shelter as a demonstration for his listeners.

Leon Clubs Open Attack on School Dropouts Through 4-H Career Exploration Project

According to the U. S. Department of Labor, the number of teenagers in the labor force during the 1960s will reach 2.5 million.

Finding a job and keeping it is a major problem for all people in our society today—but is especially so for teenagers, many of whom are not highly trained.

4-H club members in Leon county are using the Career Exploration program to help combat this growing problem. They hope to generate enthusiasm among teenagers to seek some skill or profession after high school.

Through the Career Exploration program, Leon county 4-H'ers have been carrying out a four-pronged promotional program.

First, Extension agents called in their volunteer adult leaders, described the problem and gave these leaders a thorough briefing on how the Career Exploration project is designed to combat the problem. Leaders were encouraged to interest their 4-H club members in the project.

As an additional resource, they contacted Florida State University's Department of Guidance and Counseling which send details about the type of services they offer to high school graduates.

One of Leon county's finest Extension efforts over the past few years has been a continuing series of "Minute Minders" carried by each of Tallahassee's radio stations. These brief "spot announcements" offer Extension educational information.

Some of the "Minute Minder" time was turned over to the Career Exploration effort. Spots giving information on careers in health, agricultural science and engineering, forestry, and food science and nutrition were aired. Information came from Extension economists, health, and food specialists.

Mrs. Oris Causseaux, leader of the Busy Bee club, and her daughter Barbara (the club's president) took a special interest in the drive. Several members of the club began work on the career project.

One of these, Sandra Gerrell, wanted to attend college to prepare for a career, but was concerned about the costs. Assistant home agent Mrs. Cynthia McCutcheon and Mrs. Causseaux contacted the Financial Aids Department at FSU and got information that was presented to the entire club.

Through this 4-H project, Leon county Extension agents are making an open attack on the school drop-out problem. They know the key to success is concentrating on careers teenagers are interested in, and providing good, factual information on these opportunities.

EXTENSION**FROM THE TASK FORCE REPORT**

"The fact is that extension has deteriorated to the point that it is not much good to anybody, except maybe 15,000 extension agents who otherwise would have to look for work."

COMMENTS

Extension activity in Florida is attuned to the needs of a vast clientele - from farm producers to low income blacks, extension programs are geared to urban and rural living patterns to help individuals and family units get the most from their resources. In Florida during 1971, over two and one-quarter million people received help from extension. Of this total, nearly 300,000 live and work in rural areas.

Some of extension's activities in other areas not included in this report are shown with the following illustrations.



UNIVERSITY OF FLORIDA
INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES

FOR RELEASE AFTER MONDAY
DECEMBER 13, 1971

The First Florida Consumer Survey, recently conducted by the Florida Cooperative Extension Service, University of Florida, brought out that the chief concerns of consumers are money problems and prices, time, decision making, and planning. When it comes to grocery shopping consumers want low prices, top quality, fast service, and uncrowded stores. Dr. Olive L. Morrill, assistant dean for human resource development, Florida Cooperative Extension Service, released the findings of the Survey today.

The Survey showed that almost half (42%) of the shoppers bought for 1 or 2 persons households. These people reported they often have difficulty finding a variety of foods packaged in small containers. About 16% of those interviewed shopped for families of 6 or more.

The Survey reached some 20,000 consumers, with 864 stores participating. All types of food stores were included in the study.

Extension Homemakers interviewed consumers in 51 counties. Each 10th person entering the store was interviewed. Consumer opinions about food prices were checked. They were asked which of the services of the store they preferred, why they were shopping that particular store, how many times they shopped there a week, for how many people they were buying.

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN FILE NO. CRD -more-

FLORIDA CONSUMER SURVEY ---2

They were asked to express their opinions on trading stamps, unit pricing, and open code dating. They were asked what their greatest problem in shopping was.

The majority of the people interviewed said they saved trading stamps and liked them. Most of the consumers interviewed said they were aware of unit pricing and open code dating and that both these would have advantages for them. Over one-third of the consumers indicated that they did not understand unit pricing and 1 out of 4 did not understand open code dating.

Of all the people interviewed only about one fourth felt that such increased services as unit pricing and open code dating would affect the cost of food. Fewer people appeared to want these services if they increase food costs.

When consumers listed their major problems few identified the need of open code dating and unit pricing.

About 24% of the shoppers interviewed were men. Nearly 7% were couples shopping together. A total of 21% of the consumers were retired. More than 20% were 61 and over years of age.

Detailed findings of the survey are being shared with food stores, so they may know the opinion and remarks of their customers.

A report of the survey findings is being given to the Legislative Committee on Consumer Protections.

The findings identified six broad problem areas faced by Florida consumers. These are the same areas in which Extension Home Economics had suspected people faced problems and are areas in which Extension has extensive on-going educational programs in 51 Florida counties.

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SPECIAL
12-10-71



NEWS

UNIVERSITY OF FLORIDA
INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES

FINDINGS RELEASED IN STATEWIDE CONSUMER SURVEY

**** SPECIAL ****
FOR RELEASE 5 P.M.
MONDAY, DECEMBER 13

18 LINES

FINDINGS WERE RELEASED TODAY FOR THE FIRST FLORIDA CONSUMER SURVEY, CONDUCTED BY THE COOPERATIVE EXTENSION SERVICE AT THE UNIVERSITY OF FLORIDA. DOCTOR OLIVE MORRILL, ASSISTANT DEAN FOR HUMAN RESOURCE DEVELOPMENT, ANNOUNCED THAT MORE THAN 20-THOUSAND PEOPLE WERE INTERVIEWED IN THE STATEWIDE SURVEY. AMONG OTHER FINDINGS, THE SURVEY SHOWED THAT MOST SHOPPERS AGREE ON WANTING LOW PRICES, TOP QUALITY, FAST SERVICE AND UNCROWDED STORES. THE MAJORITY OF THOSE INTERVIEWED SAID THEY FAVOR UNIT PRICING AND OPEN CODE DATING. MOST ALSO SAID THEY SAVE TRADING STAMPS REGULARLY. SURVEY FINDINGS WILL BE RELEASED TO FOOD STORES IN FLORIDA, AS A GUIDE IN MEETING CONSUMER NEEDS. THE LEGISLATURE HAS ALSO EXPRESSED INTEREST IN THE SURVEY FINDINGS. THE INTERVIEWS WERE DONE IN SEPTEMBER BY MORE THAN 2-THOUSAND VOLUNTEER HOMEMAKER CLUB MEMBERS SUPERVISED BY COUNTY EXTENSION HOME ECONOMICS AGENTS.

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 NATIONAL BLUE-RIBBON WINNER
AMERICAN ASSOCIATION OF AGRICULTURAL COLLEGE EDITORS

FARMERS SPEAK**FROM THE TASK FORCE REPORT**

"Like other parts of the land grant complex, extension has been preoccupied with efficiency and production -- a focus that has contributed much to the largest producers, but which also has slighted the pressing needs of the vast majority of America's farmers, and ignored the great majority of other rural people."

COMMENT

This document has attempted to address itself to some of the major criticisms of the Task Force Report by exhibiting a sampling of published material describing some of the work of the University of Florida land grant complex.

It is unfortunate that the Task Force Report did not have the opportunity to make first-hand inquiries of individual American farmers. In the limited time available to prepare this testimony, it was impossible to get a scientifically reliable sampling of opinion to present to the Committee. We have asked a sampling of Florida farmers and home-makers to submit their opinions concerning the role the Institute of Food and Agricultural Sciences has played in their farm and home activities. These letters follow.

It is hoped that this sub-committee will be able to receive some of this testimony in a direct way, and we issue an invitation to visit Florida and talk to its peoples --- both rural and urban concerning the role of Florida's land grant colleges.

TO WHOM IT MAY CONCERN:

I feel that without the advice and assistance of the Extension Service and Experiment Stations, I would have much difficulty in operating my farm consisting of 240 acres of tobacco, corn, grain sorghum and livestock.

The main problem I see with the Extension Service and Experiment Sta. is that they do not have sufficient funds to carry out the type of programs that they would like to.

J Monroe Wilbourn

TO WHOM IT MAY CONCERN:

I think that the Extension Service is doing a good job. Through the various projects such as the Livestock Improvement Association I have been able to get some good hogs which I otherwise would not have been able to have.

The Extension Service helps me to take soil samples and figure out the fertilizer analysis for my crops and the county agents help me to decide what varieties of corn, tobacco and peanuts to use. I could not have as good a farm operation now if it wasn't for the Extension Service.

Although I am a Negro farmer, the Extension Service has always been fair with me and I hope to continue to use them in my farm operation of 150 acres of corn, tobacco, and peanuts as I have in the past.

To Whom It May Concern:

Extension work has filled a large part of my life for the past nine years. Compared to many of the ladies in Suwannee County, I haven't even started. We learn such a large variety of things in Extension work; some of these include consumer education, driver's education, law, crafts, personal appearance--just so many different things I could not do them all.

If Extension work in the eleven clubs in our county was all the interest I had outside my church and home, I would lead a very full and rewarding life indeed.

Sincerely,

Mrs. J. C. Griner

MRS. J. C. GRINER


Past President, Suwannee
County Extension Homemakers
Council

TO WHOM IT MAY CONCERN:

The county agent's office helped me get a good stock of hogs through the Livestock Improvement Association. I am a small farmer with seven brood sows, a large male and 35 shoats.

Any questions that I might have about my 119 acre farm can always be worked out and cleared up by the help of the Extension staff.

I am a small Negro farmer, but they have worked every way they could with me.


EDWARD WILLIAMS
P.O. Box 299
Live Oak, Florida 32060

329 Northwest 27 Avenue
Fort Lauderdale, Florida 33311
June 13, 1972

Dr. E. T. York, Jr.
Vice President for
Agricultural Affairs
1008 McCarty Hall
University of Florida
Gainesville, Florida 32601

Dear Dr. York:

In reference to your trip to Washington and the Committee hearing, I would like to say that as a small farming operator and farm market manager, we have relied most heavily on the Broward County Extension Service and feel that the service rendered to us has been both inspirational and educational.

We feel that if this service was taken away from us or in any way curtailed, that we would not be able to continue our business in as profitable and satisfactory manner as is now the case.

I wish you the most success in your efforts on our behalf.

Sincerely,

Dale Jesus

Dale Jesus

CHARLES F. FAWSETT, JR.

2417 NORTH OCEAN DRIVE
P. O. BOX 4037
FORT PIERCE, FLORIDA 33450

June 12, 1972

JUN 15 1972

Dr. E. T. Yerk, Jr.
1008 McCarty Hall
Gainesville, Fla. 32601

Dear Dr. Yerk:

I understand a group calling itself the "Agribusiness Accountability Project" has published a statement derogatory to the "Land Grant College Complex", charging that the various institutions within this group are useful only to large farming corporations and do nothing for the individual farmer.

I have been a citrus grower for forty years. Presently I and my sons own 160 acres of citrus in St. Lucie County. I also do grove work for several other growers.

During all of this period I have been generously aided by the Agricultural Research Center, (Citrus Experiment Station) at Lake Alfred, and during the last twelve years by its branch at Ft. Pierce. This by as many inquiries, in person or by phone, as I cared to make, as well as by the published work of their staffs.

The County Extension Director (formerly County Agricultural Agent) in St. Lucie County has aided me in I estimate a dozen interviews a year since he has occupied this office. This has been more frequent in recent years since I entered the beef cattle business with almost no background of knowledge and called on Hugh Wheelchel, the St. Lucie County director, for almost the only reliable information available to me.

The larger Corporations are usually well-staffed with their own experts and depend far less than I on County Extension and the Agricultural Research Center. The statement that these facilities serve large corporations in preference to individual farmers is so far from the truth that I do not believe it could have been made in good faith.

Sincerely,


C. F. Fawsett, Jr.

CFF:mf

LANDSCAPE NURSERYMEN

June 14, 1972

Phone (813) 883-4011
225 New Auburndale Highway
LAKELAND, FLORIDA 33801

Dr. E. T. York, Jr., Vice President
AGRICULTURAL AFFAIRS
1008 McCarty Hall - University of Florida
Gainesville, Florida 32601

Dear E. T.:

We are one of the few surviving family-operated ornamental nurseries that retail what we grow and use it in our landscape business. Most nurseries are either wholesale, liner producers or garden center operators now, but we have managed to combine all of this in one operation.

Our survival is the result of hard work by every member of the family; our persistence and determination to make it through the lean years of 1932 to 1952; and the unlimited technical information and advice we have received from the University of Florida.

Hardly a week passes that we don't use the services of extension in Gainesville or Bartow, and we regularly forward specimens to you for expert analysis.

The most valuable extension of the University into our business has been the cost analysis over the past six years by Dr. Ned Coker. Our financial condition has strengthened steadily because the analysis has shown us where our operation needed strengthening.

This month we are taking four key employees to the nurserymen's short course at University of Florida on June 20th and 21st.

There is no way for us to keep up to date on research and new techniques except to see for ourselves what you are doing at least once a year.


With best wishes, I am

Most Sincerely,




Curtis Peterson
Peterson's Nursery

gh



Flowering Shrubs, Evergreens,
Shade & Fruit Trees, Annuals,
Spray, Fertilizer, and Garden
Equipment



TAMPA INDEPENDENT DAIRY FARMERS' ASSOCIATION, INC.

P. O. BOX 8011
2725 - 10TH AVENUE

PHONE 248-4141
TAMPA, FLORIDA 33608

June 14, 1972

Dr. E. T. York
Vice President for Agricultural Affairs
1008 McCarty Hall
University of Florida
Gainesville, Florida 32601

Dear Sir:

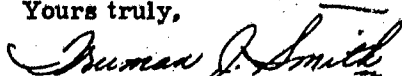
It is our understanding that you are to appear before a Congressional hearing on June 19 and 20 relative to reports by the "Agri-business Accountability Project" group.

The association believes that the reports by this group to be highly irresponsible, biased and distorted.

Please be advised that dairymen over the state credit the College of Agriculture, University of Florida, through its research, teaching and extension divisions, with invaluable contributions to the industry down through the years. This imparted technology has enabled the dairy industry of Florida to make the most rapid advancement in growth and efficiency of any state in the union during the last decade.

We are particularly proud of the work and results as provided through the university system.

Yours truly,


Truman J. Smith, President

THS/sr

June 13, 1972
R. 1, Box 97
High Springs, Fla.

JUN 14 1972

To whom this may concern:

Dear Sir:

The Extension Service has been of great help to my farming enterprise. The Extension Service is the only place to go for tried and proven practices and information on crop and livestock.

On my acres take for instance The University of Florida Conducts test on different varieties of corn to see which one is best for this area. I use this information for the variety of corn to plant.

The Extension Service also has a soil testing program which is very helpful in determining the right amount and amount of fertilizer to use.

The University of Florida has recently developed a new variety of peanuts that has a increased yield of 25% and has increased my net profit 35% from peanuts.

The Extension Service is continually releasing new varieties of oats, soybeans and other crops which are better and more profitable. Without this service farming would be 15 to 20 years behind what it is today.

I strongly feel the service should be continued in the future.

Sincerely
Mr. Eugene P. McFarlane

Senator STEVENSON. Our next witness today is Dr. George Cornwell, professor of wildlife ecology, University of Florida, Gainesville, Fla.

Dr. Cornwell received his B.S. from Michigan State University, his Ph. D. from the University of Michigan, and he has received many honors in his career, one of the most recent being the Florida Governor's Conservation Award, and he is the author of some 50 technical papers, 20 generalize articles, and two books.

Thank you for joining us, Dr. Cornwell.

As I said to the other witnesses, you are welcome to read your statement, or if on the other hand, you would like to conserve time by offering it for the record and summarizing, that is fine.

STATEMENT OF DR. GEORGE CORNWELL, PROFESSOR OF WILDLIFE ECOLOGY, UNIVERSITY OF FLORIDA, GAINESVILLE, FLA.

Dr. CORNWELL. Thank you very much, Mr. Chairman, and I will attempt to do both.

I would like to open with the statement though on what I think is a very fundamental quote from Henry Beston's book in Northern Farm, 1948, which states:

When farming becomes purely utilitarian, something perishes. Sometimes it is the earth life which dies under this 'stand and deliver' policy, sometimes it is the human beings who practice this economy, and oftenest of all it is the destruction of both land and man.

Beston wrote that over 20 years ago, but I think the message perhaps is even more relevant today than at the time he authored it.

I would like to say I am and have been a professor for land-grant universities for 10 years, and I believe I know them well.

In my experience, the agricultural colleges tend to be administered in a highly autocratic, chain-of-command manner.

This has rather great consequences on the ways they function internally. There is tight administrative control on nearly all aspects, and I think this tends to deaden the intellectual ferment, and weakens their innovative "think-tank" contributions.

I have studied the agribusiness accountability project's "Hard Tomatoes, Hard Times," and I find it a perceptively fair and accurate assessment and indictment of the land-grant college complex. A full public accounting and mission redirection for these institutions is long overdue.

Unlike Dr. York, I find it a perspectively fair and adequate assessment of situations in land-grant colleges.

I think this is true in all of the major and general conclusions that the report deals with, and I would hate to see the impact of the report diminished by focusing on certain details.

I think agricultural college staff members are well aware of their probable fate if they publicly criticize the policies of their college or agri-business.

Control of staff through fear of administrative disfavor and reprisal is a fact of life in agricultural colleges.

Policy adversaries are selected against so vigorously that nearly all employees are or quickly become enthusiastic advocates, at least in their public positions.

This tends to lessen the public comment by faculty members of these colleges.

In fact, in general, the professional staffs have become advocates. I think it is difficult for any governmental committees such as yours to find critiques of land-grant education within that educational system, and it is almost going to require intensive outside study of the system to determine factually how it is operated.

Senator STEVENSON. I ask you the same question that I asked Dr. York. How should that intensive study be undertaken?

Who is capable of doing it?

Dr. CORNWELL. Well, it would seem to me we have the capability within society to organize a study team, empowered to carry on such an independent investigation.

It should be a broad interdisciplinary team of people that are not directly tied to the land-grant college programs, but who have the expertise collectively to analyze those programs.

Senator STEVENSON. You are not suggesting this should be undertaken by the Department of Agriculture?

Dr. CORNWELL. No, sir. I think you would get a rubber-stamp result. I am convinced that this kind of study should focus on and be productive to the system, the total system, and not to the agribusiness sector.

It needs to be done from outside the system. One of the real reasons that agri-business has gone the way it has in the development of its technology and its mass application is that it has been just about totally in control of its programs, and the inputs and policy decisions, and the criticisms on the programs of the system have all been internal, and so it becomes more and more self-serving as that process goes on.

Senator STEVENSON. How would you feel about such a study if it was undertaken by the standing Agriculture Committees of the Congress?

Dr. CORNWELL. I would hesitate to have such a study done by the congressional agriculture committees, again, because through their constituency, they have heavy involvements in the topic under investigation.

I should think the study needs to be done by people that are not really directly and personally involved in the topic of the study.

Perhaps a study team under the auspices of the Council on Environmental Quality or EPA would be the answer.

I have not really given this any thought, but that is what I think at this time.

Senator STEVENSON. Fine. Please proceed.

Dr. CORNWELL. I would also like to put before you the self-image of IFAS and all agricultural colleges as servants of agribusiness as clearly projected by the following excerpts from the official IFAS description in the University of Florida Record, 1972-73:

With programs extending into virtually every county and community in Florida, the primary mission of IFAS is that of helping the State to realize its maximum potentials for agricultural development.

The Vice President for Agricultural Affairs for the University coordinates the functions of this unique research and development program which serves the State's multi-billion dollar agricultural industry—Florida's most important industry.

Developing the trained manpower to serve Florida's dynamic agricultural industry is the mission of the resident instruction function of IFAS . . . to provide

the training necessary for its students to meet the ever-changing needs of the State's highly specialized agriculture and related businesses.

The mission of the research division of IFAS is directed at developing new and improved technology to enable Florida's agriculture to become more efficient and improve its competitive position.

The agricultural programs of the University of Florida have, without question, been a major contributing factor in the development of Florida's multi-billion dollar agricultural industry. The resources of these education, research and development programs are committed to assisting all segments of the agricultural industry with a more complete development of Florida's agricultural potential.

Now, these statements fit perfectly the indictment of Mr. Hightower's study.

I would feel that IFAS's responsibility as a land-grant university should be that of serving the total system and not a subsection of it, such as agribusiness.

Now, not only do the agricollages serve agribusiness, to a major extent they provide its leadership and direction. For example, Dr. York, I believe, is Florida's foremost representative of agriculture, and its public spokesman. In performing this function, he utilizes a highly competent editorial staff, and a statewide network of extension activities, all of this publicly funded, to carry the industry's position and policies to the people.

If the institute served all of society directly, as its primary mission, this might not be subject to as much criticism as it is within a narrowly defined mission.

I also believe the research fund of IFAS and the other land-grant colleges primarily serves agribusiness, and I think a really in-depth factual analysis would show at least three-fourths of the research projects in this country are aimed directly at felt needs of the agribusiness sector of the total agricultural rural land complex.

I believe that careful review of research budgets, project by project, would show that at least three-fourths of all research is specifically directed toward agribusiness needs.

In my own specialty of ecology and environment, IFAS has until recently done little more than practice "tokenism" and public "imagery" in their environmental research.

They are highly skilled in both arts. Most environmental projects of substance, typically and not necessarily wrongfully, are directed at the problem areas where agribusiness comes into direct conflict with public environmental concern.

An ecologist is teathed on the holistic nature of life—the interrelatedness and interdependence of all living things and their environment. Therefore, it clearly is counterproductive to consider the great needs of rural residents out of context with the total rural environment.

Certainly in the environmental area, and I would suspect in many other areas, agriculture tends to be a follower rather than a leader in these areas of concern.

The environment is a good indication of that.

Senator STEVENSON. Let me make this a little more specific.

Is it your opinion that the availability of funds for research from agribusiness and private sources determines the direction of publicly supported research activities at land-grant colleges generally, and the University of Florida in particular?

Dr. CORNWELL. No, sir; that is not my exact opinion.

I believe that the private inmovement of money in the land-grant colleges is small, and it is small for one very major reason, and that is much of their research needs are being met with the public funds, and, therefore, they do not need to infuse any major private research support to get their research needs met.

Senator STEVENSON. Well, if it is true in this regard that their needs are being met with public funding, why is it that those decisions are made to meet that need of agribusiness as opposed to the ecological interest of rural America and all of society?

Dr. CORNWELL. Basically I think it is because the research policy which we got into in the prior testimony is internalized, in the way it is set.

It really is the agribusiness, and the agriresearch team serving that business, that determines the policy of the action.

There may be occasionally a representative of the environmental group or some other nonagribusiness influence, but it is so small that it really does not influence policy, and now the main thrust of agriresearch has been in the introduction of marketing areas, and I think their planning, their future planning shows that this is to be continued, production being in addition to improvements, the heaviest of chemicals and machines, and this is where the great advances in American agriculture has taken place, in this production of marketing areas with tremendously high cost elsewhere.

I was curious about the new peanut, as an example. Within a year or two after the development of the new peanut, all of the peanut acres in the State are planted with it, yet there has been extensive literature for over 20 years that the near exclusive reliance on inorganic fertilizers was a mistake, and that we ought to be stressing organic fertilization in the use of human and domestic livestock waste, and yet this still remains unimplemented and largely unresearched theory after a couple of decades of evolution from outside the policy setting team.

It still remains a pilot project in one or two places in the State.

Well, my specialty, sir, is the environment, and I have attempted in my prepared paper, in table I, to list and categorize the major ways in which agritechnology as it is now practiced impairs the environment, and I will not attempt to take up your time now to go through that list, but it certainly seems to me to be counterproductive to consider the great needs of rural residents out of context with the total rural environment, and as a technology continues to degrade that rural environment, it cannot help but adversely affect most of the residents therein.

Much of the damage, I think, is an unnecessary spinoff of the curious expansion of agricultural technology, and I would just cite the most monumental environmental damage that is associated with pesticide and fertilizer uses, channelization, irrigation, wetland drainage, intensity of crop and forest management practices, and habituation to machine intensive technology.

This last has had severe implications for the farm labor force.

Now, the agribusiness complex is increasingly paranoid over environmental criticism, as reflected in the comments of Secretary of Agriculture Butz:

Butz discerned a real threat to American agriculture . . . from the environmentalists or from the do-gooders or from consumerism or from whatever you want to call it, and urged his audience to extol the blessings of pesticides (Newsweek, December 6, 1971).

I have here the March 1972 issue of Florida Agriculture which indicates the direction and leadership in agriculture, a feature article on "Backyard Won't Feed America," but what America really needs is a return to backyard farming, and going back to a victory garden type of program.

Modern agricultural technology has achieved its advances of the past two decades at tremendous increases in costs.

Many of these increases in costs have been internal, through the use of inorganic fertilizers, through a manifold increase in the use of pesticides, through a near doubling of the farm acres irrigated, and perhaps most significant, a near tripling of onfarm machinery values from \$12.2 to \$34.3 billion.

The only reason we have the cheapest food produced in the world is because that production has never been subjected to a critical cost-benefit analysis that would be satisfying to Senator Proxmire, and until we do that kind of analysis, we will not really know what it costs America to feed itself. I think it would be significantly more than the figures that are currently made available to us.

I would also say it seems to me to be absolutely ridiculous to feed this country using only 2.5 percent of our labor force.

It would seem to me that we should be using at least 8 to 10 percent of our labor force for food production.

Again, to have a diversified and dynamic total labor force, we must increase the quantity and life-style quality of farm labor, and we must reduce the costly and more urban problems associated with unemployment, crime, and welfare.

I think when you undertake a review of labor costs, again, you must take a total systems review, and not just a review of the particular crop involved, or the agribusiness as a whole.

It took me a long time to realize that agriculture is our greatest land user, 1.6 billion acres compared to 50 million acres used for cities and all transportation facilities.

As an industry, it contributes the most of any single social entity to environmental degradation.

The agribusiness policy has been to continually increase short-term yields while environment and society absorbs many hidden costs.

Investments of this magnitude suggest to me that society rightfully should play a greater role in the shaping and direction of agricultural technology and its research, development and manpower training arm—the land-grant universities.

Progress in modern food production frequently has been defined as feeding more and more people on less and less farm land by fewer and fewer farmers.

This seems a totally false altar at which to worship. I would prefer a national policy that would, through education and reproductive control, reduce the mouths to feed, keep the best farm land in agricultural production, rather than squandering it to urban growth and other nonfarm uses; and employ a much expanded and better rewarded farm labor force.

I would like to see national incentive programs: (1) Restoring backyard farming as a tradition; (2) returning organic fertilization to respectability; (3) fully applying integrated control technology to agricultural pests; (4) reducing the intensity of land and water use; and (5) identifying the rural environment as an optimum location for human habitation and occupation.

Thank you for this opportunity to participate in the legislative process, Mr. Chairman.

Mr. STEVENSON. Thank you, Dr. Cornwell.

Your full statement will be entered into the record at the end of your testimony.

We have heard this morning about the need for more people-oriented research on the one hand, and on the other, the more traditional emphasis on agricultural efficiency.

What kinds of people-oriented research go on at the University of Florida?

Dr. CORNWELL. Well, I am in the school for forestry, and of its total research program, would feel that a project in the aspects of the scenic environment, and the way people perceive those aspects, would fall into this people-oriented project, and it really is the only major research project in our program that deals directly with people, as I see it.

I think it is unfair to indicate that there is not people-oriented research, but I think it is fair to indicate that the people oriented research is a very, very disproportionately small part of the total research program.

Senator STEVENSON. What proportion of the funds for research in the school of forestry go to people-oriented projects?

Dr. CORNWELL. I would think it is less than 5 percent.

Senator STEVENSON. When land-grant colleges develop new chemical pesticides, would you say that we in Government could be satisfied that sufficient research is conducted to determine whether the health and safety of farmworkers will be endangered?

Dr. CORNWELL. I think especially in the near past this research has been almost totally lacking.

I believe in the last 5 years there has been tremendous advances made in screening and monitoring, but still because of the high research costs of this kind of determination, and the large sample sizes in terms of humans that you need to incorporate in research, the research is still greatly inadequate. I believe farmworkers encounter serious occupational hazards in the use of agricultural chemicals.

Senator STEVENSON. Yesterday the secretary of agriculture of Pennsylvania testified that there was a great duplication of research effort of land-grant colleges.

Is that statement true in your opinion?

Dr. CORNWELL. Yes, I think that is very true. They are all very much alike in organization, and in the types of things they research, but they have tended to establish a tradition of doing independent research.

Now, they have organized into regional research councils. That is an attempt to reduce the magnitude of the duplication, but it still exists, in a very real degree.

Senator STEVENSON. Is that the purpose of those regional research councils—to avoid duplication?

Dr. CORNWELL. No, but I think that is one of the spinoffs, and they of course stimulate similar research when they meet, so you get a backlash, a director from South Carolina, for example, will be discussing what a Florida research worker is doing, and there will be a tendency sometimes for that work to be done in Florida as well.

Now, crops being what they are, and farm animals being what they are, you do need to often do similar types of research in different geographical locations because of the adaption of plants and animals to local factors.

That is an excellent question, and an excellent example of why a research team evaluating this aspect, for example, in agricultural research needs to be a highly competent group of individuals that can go beyond research projects in the opening paragraphs, and really look at them to see if they are duplicative or if they are indeed necessary.

Senator STEVENSON. We have heard in these hearings conflicting evaluations about the worth of specific projects.

Some of the criticism have been somewhat general, the suggestion being by consumers, and farmworker representatives, some people from the universities, and others, that everybody is benefitted by land-grant college activities except the family farmers, the farmworkers, and the consumer.

I find beneath it all a difference of philosophy. I do not know if you were here this morning to hear Dr. Butz, but he spoke very forcefully of his own philosophy which strikes me as emphasizing almost exclusively the importance of efficiency, agricultural efficiency, and so-called progress.

Others like yourself feel that philosophy is all wrong, that we have paid a very high price for so-called efficiency, and that our philosophy ought to be different.

Maybe the best place, the most logical place, to start evaluating these conflicting philosophies would be with an analysis of the cost benefits of specific activities. If that is a sound statement, how would you begin in this country to resolve the philosophical questions in the way that could evaluate the impact of the activities and the programs of land-grant colleges?

How do we ever resolve those philosophical questions?

Dr. CORNWELL. I think that is the most profound question of the morning, and you have identified the exact departure point.

That point is the goal or mission that society wants to set for agriculture, and if society wishes a direction, how do you determine what direction, what mission, what goal or goals society as a whole should set for agriculture? I think you are a more competent person to judge that than I am, but my personal philosophy is in almost total discord with what I call the expansion of the agri-industry as it is practiced today.

Senator STEVENSON. Well, I know this is rather vague, but universities theoretically have represented in them a universality of interests.

They do represent an extraordinary variety of human resources—men and women on the faculties engaged in teaching, conducting re-

search, studying, that supposedly reflect all sorts of philosophical attitudes.

Why can't the university begin to resolve some of these philosophical questions? If the universities themselves were willing to pool their resources and disciplines from all of their different schools, couldn't they help us resolve some of the fundamental questions?

Dr. CORNWELL. Well, it could be done through the university research framework, trying to determine what different sectors of the public feel about these issues, and what direction they would like to see them go in.

I think if we looked at specific practices such as channelization, on which much information was brought out in testimony before the Reuss subcommittee, the majority of Americans are very concerned about what channelization does to the rural environment and the quality of life of rural residents.

One thing it does for the rural poor that we have never examined, is it really removes a free protein source.

Intensive land use likewise works against the small farm wildlife species that have additionally helped feed the rural poor.

I believe the damaging overintensive use of our lands for forestry, farming, and ranching could be demonstrated through integrated research and a consensus public opinion about those uses that might be helpful to Congress in terms of helping legislate a new policy.

Senator STEVENSON. I spoke earlier about our concern about the effects of growing concentrations of power, of economic power, at each step in the production, processing, and distribution of food.

Nobody in this country has really gotten into that issue.

We do not know all of the facts, but every so often, a fact emerges that I find very disturbing, as, for example, the statement that already 52 percent of all of the land in the State of Maine is now owned by just 12 corporations.

We do not, in the United States, know who owns the land. We have the Department of Commerce, or the Bureau of Labor Statistics, and they maintain all sorts of vital statistics and economic indicators to answer economic questions.

We have apparently no information about land ownership patterns, or the rapidly changing food distribution patterns in this country.

Getting raw data is, for example, an activity that could be undertaken within the charge of land-grant colleges. It would help us to assess the problems of the concentration of land ownership, and the trends with which we might begin to produce governmental answers?

Dr. CORNWELL. Yes, I think the raw data, that these data do exist in many of the States.

We have that kind of information in Florida, and it can be extracted and compiled for such studies.

We know fairly well all of the large private forest holdings of the States, and the companies that hold them, and I believe automated farming and ranch ownerships are identified within the university, but to take a critical systems look at that kind of ownership, then, again, I think the investigation needs to be done largely from people outside of the agribusiness we are studying.

Senator STEVENSON. Would you say it is within the capacity and responsibility of land-grant colleges to study, to cite another example,

the concentrations of power within the food distribution system, or is that getting too far from agriculture?

Dr. CORNWELL. No; I do not think it is.

Food processing and food marketing are standard areas of responsibility within the land-grant universities, and I think the personnel within those sectors are very knowledgeable of the lines of power that exist within the State.

Senator STEVENSON. I thank you very much again, Dr. Cornwell. I would like to continue with your testimony, but we must move on.

Dr. CORNWELL. Thank you for the opportunity, Mr. Chairman.

(The prepared statement of Dr. Cornwell with additional information follows:)

STATEMENT BY DR. GEORGE W. CORNWELL, ASSOCIATE PROFESSOR OF WILDLIFE ECOLOGY, INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES (IFAS), UNIVERSITY OF FLORIDA, TO U.S. SENATE SUBCOMMITTEE ON MIGRATORY LABOR, CHAIRMAN - SENATOR ADLAI STEVENSON, JUNE 20, 1972.

"When farming becomes purely utilitarian, something perishes. Sometimes it is the earth life which dies under this 'stand and deliver' policy, sometimes it is the human beings who practice this economy, and oftenest of all it is the destruction of both land and man." (Henry Reston in Northern Farm, 1948)

I earned my baccalaureate from the College of Agriculture at Michigan State University in 1955, and I have been involved in agricultural teaching, research and extension programs for 10 years at land-grant universities in Virginia (VPI) and Florida (Institute of Food and Agricultural Sciences (IFAS), University of Florida). I believe I well know the inner workings of the agricultural programs of land-grant universities based on this experience as a student and as a staff member.

My candid comments today are made without fear of reprisal because my employment has already been terminated by IFAS. This termination apparently is an outgrowth of my public conflicts with IFAS and the Florida agri-business on environmental policy. I am challenging my dismissal on the basis of alleged violation of my First Amendment rights as stated in the U.S. Constitution and on alleged violation of the precepts of academic freedom. The case is now undergoing "due process" review by the University of Florida Senate Committee on Academic Freedom and Tenure.

Agricultural colleges, in my experiences, tend to be administered in a highly autocratic, chain-of-command manner. Administrative emphasis is placed on tight control of nearly all aspects of the staff's professional life. This has a deadening effect on the intellectual ferment normally encouraged in universities, and greatly weakens their innovative "think-tank" contributions to society.

Furthermore, the land-grant colleges are collectively homogeneous, inbred, narrowly stereotyped in their programs, and largely wedded to agri-business. They are incredibly destructive of the rural environment and most of its human occupants as a result of the leadership they provide as the research, development, and often sales arm of agri-business.

I have studied the Agri-business Accountability Project's Hard Tomatoes Hard Times and find it a perceptively fair and accurate Assessment and indictment of the land-grant college complex. A full public accounting and mission redirection for these institutions is long overdue.

Agricultural college staff are well aware of their probable fate if they publicly criticize the policies of their college or agri-business. Control of staff through fear of administrative disfavor and reprisal is a fact of life in agricultural colleges. Policy adversaries are

selected against so vigorously that nearly all employees are or quickly become enthusiastic advocates, at least in their public positions. This Committee will be hard pressed to find critics of land-grant education within the agricultural colleges, although their internal defenders will be legion. A brief case history illustrates my point: Institute of Food and Agricultural Sciences administrators have taken an extreme, hard line until very recently on the continued use of DDT and other chlorinated hydrocarbon pesticides. IFAS and Florida agriculture have been very slow to perfect and adopt integrated pest control technology when compared, for example, to California. IFAS in 1971-72 had 759 professional staff and 1,041 career service employees. Certainly, many of these were not advocates of the IFAS pesticide policy, yet I was the only staff member that publicly opposed this policy - thereby greatly distressing my administrators who regard such behavior as disloyal and a violation of ethics.

The self-image of IFAS (and all agricultural colleges) as servants of agri-business is clearly projected by the following excerpts from the official IFAS description in the University of Florida Record, 1972-73:

- "With programs extending into virtually every county and community in Florida, the primary mission of IFAS is that of helping the State to realize its maximum potentials for agricultural development."

"The Vice President for Agricultural Affairs for the University coordinates the functions of this unique research and development program which serves the State's multi-billion dollar agricultural industry--Florida's most important industry."

"Developing the trained manpower to serve Florida's dynamic agricultural industry is the mission of the resident instruction function of IFAS...to provide the training necessary for its students to meet the ever-changing needs of the State's highly specialized agriculture and related businesses."

"The mission of the research division of IFAS is directed at developing new and improved technology to enable Florida's agriculture to become more efficient and improve its competitive position."

"The agricultural programs of the University of Florida have, without question, been a major contributing factor in the development of Florida's multi-billion dollar agricultural industry. The resources of these education, research and development programs are committed to assisting all segments of the agricultural industry with a more complete development of Florida's agricultural potential."

Obviously, the land-grant university program originated from great social need and had a broad mission to serve the nation. I believe this mission has been bastardized and subverted, especially in the last three decades, to the point where today's agri-colleges now serve primarily agri-business. Because of their past successes and a huge P.R. budget, the land-grant programs have largely escaped public scrutiny until the appearance of the Agri-business Accountability Project. Hopefully, this hearing is a first step toward exercising greater control over agricultural technology and publicly-funded agricultural education and research.

Not only do the agricultural colleges serve agri-business, to a major extent they provide its leadership and direction. In Florida, the Vice President overseeing IFAS is clearly the most powerful representative of agri-business and its public spokesman. Furthermore, he has a highly competent Editorial Office and a statewide network of extension agents, all publicly funded, at his command to carry his and the industry's positions and policies to the people.

The richly funded research function of IFAS and other land-grant agricultural colleges largely serves as the research and development extension of agri-business. I believe that careful review of research budgets, project by project, would show that at least three-fourths of all research is specifically directed toward agri-business needs. In my own specialty of ecology and environment, IFAS has until recently done little more than practice "tokenism" and public "imagery" in their environmental research. They are highly skilled in both arts! Most environmental projects of substance, typically and not necessarily wrongfully, are directed at the problem areas where agri-business comes into direct conflict with public environmental concern.

An ecologist is teetotal on the holistic nature of life--the interrelatedness and interdependence of all living things and their environment (Appendix 1). Therefore, it clearly is

counterproductive to consider the great needs of rural residents out of context with the total rural environment. In Table 1, I've attempted to list the many ways in which I believe agri-business damages both environment and people. Much of this damage is, unnecessary, a spinoff of the careless expansion of agricultural technology. Truly monumental environmental damage is associated with pesticide and fertilizer uses, channelization, irrigation, wetland drainage, intensity of crop and forest management practices, and habituation to machine intensive technology. The last has had severe implications for the farm labor force.

The agri-business complex is increasingly paranoid over environmental criticism, as reflected in the comments of Secretary of Agriculture Butz:

"Butz discerned 'a real threat to American agriculture...from the environmentalists or from the do-gooders or from consumerism or from whatever you want to call it' and urged his audience to extol the blessings of pesticides" (Newsweek December 6, 1971).

Agri-business' environmental paranoia also dominates its inhouse publications, such as Florida Agriculture (March 1972) (Appendix 2).

Modern agricultural technology has achieved its "advances" of the past two decades at tremendous increases in costs. These "advances" appear economically feasible only because the methods have not been exposed to the rigors of a cost-benefit analysis that would satisfy

Senator Proxmire. The period between 1950-1970 witnessed a doubling in the use of inorganic fertilizers, a many-fold increase in the use of pesticides, near doubling of the farm acres irrigated and a near tripling of on-farm machinery values from \$12.2 to \$34.3 billion.

This machinery intensive technology permits one farm worker to feed about 46 people. It seems to me absolutely ridiculous to use only 2.5% of our labor force to feed us all. We should be using at least 8 to 10% of our labor force for food production, returning to labor intensive practices that are less damaging and even restorative to the land, such as distributing animal wastes back on crop lands, etc. By increasing the quantity and life-style quality of farm labor, we reduce the costly and more urban problems associated with unemployment, crime and welfare. By encouraging people adrift to move back onto the land, we may help them renew their life-style through filling a socially beneficial ecological niche in a more pastoral and healthful setting.

Agriculture, including commercial forestry and ranching, is the nation's greatest land and water user--1.6 billion acres compared to 50 million acres used for cities and all transportation facilities. As an industry, it contributes the most of any single social entity to environmental degradation. The agri-business policy has been to

continually increase short term yields while environment and society absorbs many hidden costs. Society also extends some flagrantly open subsidies, such as \$0.5 billion per year in state and Federal research grants, \$6 to 7 billion in Federal agricultural appropriations, and many other less obvious economic supports. The 1971-72 IFAS state budget was \$22.6 million compared to \$47 million for the rest of the University of Florida excluding the Medical Center.

Investments of this magnitude suggest to me that society rightfully should play a greater role in the shaping and direction of agricultural technology and its research, development and manpower training arm - the land-grant universities.

"Progress" in modern food production frequently has been defined as feeding more and more people on less and less farm land by fewer and fewer farmers. This seems a totally false altar at which to worship. I would prefer a national policy that would, through education and reproductive control, reduce the mouths to feed; keep the best farm land in agricultural production, rather than squandering it to urban growth and other non-farm uses; and employ a much expanded and better rewarded farm labor force. I would like to see national incentive programs:

- (1) restoring backyard farming as a tradition;
- (2) returning organic fertilization to respectability;
- (3) fully applying integrated control technology to agricultural pests;
- (4) reducing the intensity of land and water use; and
- (5) identifying the rural environment as an optimum location for human habitation and occupation.

Thank you for this opportunity to participate in the legislative process.

Table 1. PRACTICES OF AGRICULTURAL TECHNOLOGY THAT ARE DAMAGING TO THE ENVIRONMENT AND MAN

I - CHEMICALS

A. Pesticides

1. Use of defoliants and herbicides and their effect on natural vegetation, crop yields, and faunal populations associated with the lost plant communities.
2. Use of DDT and other chlorinated hydrocarbon insecticides.
3. Metal (lead, arsenic, mercury, cadmium, etc.) pollution associated with pesticides and other chemical uses.
4. Disruption of natural predator-prey balances in vertebrate and invertebrate populations by use of chemicals (i.e. current fire ant control controversy).
5. Disruption of natural predator-prey populations by widespread predator control programs to protect livestock.
6. Disruption of aquatic and terrestrial food chains (i.e. current fire ant control program).
7. Sacrifice of long-term yields from the natural ecosystem (birds, fish, shellfish, mammals, etc.) as a result of global poisoning.
8. Loss of aesthetic and recreational values associated with animal deaths, contaminated lands and waters, and sterile habitats associated with use of pesticides.
9. Impact of broad scale usage of biocides on human health, including farm and migrant workers.
10. Disruption of natural genetic patterns in animal evolution by chemical pollutants.
11. Endangerment and extinction of a wide range of animal life with the threatened or real loss of their priceless genetic material and ecological function.
12. ^{Failure to} Use of the scientific method to review and utilize the published research on pesticidal effects.
13. Delayed adoption of biological and integrated pest control methodology in Florida.

B. Fertilizers

1. Over-nutrition of terrestrial and aquatic systems.
2. Adverse environmental impact of fertilizer production on both land, air and water.
3. Human health impairment associated with high nitrate levels in domestic water supplies and human foods.
4. Damage to soil building organisms, detritivores, etc.
5. Polluting and eutrophying of marine waters leading to planktonic disturbances and abnormalities (i.e. red tide).
6. Loss of humus and organic matter in the soil resulting from reliance on inorganic fertilizer.
7. Disregard of the values of organic fertilizers (human and domestic animal waste, discarded food, etc.) thus both wasting these materials and contaminating continental water supplies with them.
8. Economic waste through overuse and misuse of fertilizers, pesticides, fossil fuels, and other chemicals.
9. Discrepancies between energy consumed in production and utilization versus energy yield (i.e. failure to compute an energetic balance sheet).
10. Disrupting the global nitrogen cycle by causing an excess accumulation of nitrates in aquatic systems.

II - Physical Land-Use Practices

1. Agronomic practices designed to accommodate machine limitations rather than being designed to fit biological and ecological controls and feedback mechanisms that have evolved within natural ecosystems over eons: (the attempt to industrialize living, dynamic systems; i.e., clearcutting, monoculture, compaction, channelization, effects of forest management on stream and lake environment, drainage, elimination of economically "undesirable" trees and plant communities, etc.).
2. Stabilization of environments in a disclimax by unsound use of fire, livestock, water level manipulation, chemicals, ditching, etc.

3. Elimination of wetland sites of low forest production value, either for use as minimal timber producing sites or for future real estate speculation.
4. Manpower dislocations caused by becoming machine intensive rather than labor intensive (if you cannot resolve human labor problems, eliminate them with a machine).
5. Drainage of most of North America's glacial potholes with resultant loss in waterfowl and other wildlife productivity.

III - Miscellaneous Agricultural and Forestry Practices and Abuses

1. Detrimental effects of over-grazing on vegetation and wildlife.
2. Undesirable chemicals in food; questionable nutritional quality (i.e. excessive fat deposits in beef, etc.); and loss of chemical diversity in foods produced by modern methods.
3. Reluctance to investigate alternate methods of food production, such as the management and harvest of wild animal populations in lieu of or as a supplement to the use of typically domestic species.
4. Environmentally abusive forest management practices: extensive areas of monoculture, elimination of den and nest trees, elimination of mast producing trees and shrubs, drainage of flood plain and swamp forest types.
5. Over-consumption and wasteful use of water for irrigation, nematode control, etc. Agriculture consumes 2/3 to 3/4 of the fresh water in the world.
6. Lowering of ground water levels with drainage and excessive use, as well as a drastic loss of surface waters stored on the upper watersheds. As a result, Florida and many other regions of the U.S. are growing increasingly arid.
7. Undesirable economic dislocations associated with farm subsidies.
8. Crop wastage with market place dislocations.
9. Livestock and poultry as serious pollution factors, especially to ground and surface waters.

10. Reduction of air quality associated with woodland burning, crop burning (i.e. sugar cane), controlling ambient temperature (citrus-frost threat), the burning of fossil fuel in machinery without effective control devices, etc.
11. Tendency to overuse the land, to cultivate and crop land that because of slope, soil, etc., should have remained in a less intensively managed state.
12. A commitment by the agri-forestry industries to maximizing production, yield, profits, and competitive growth without adequately considering the environmental costs associated with these objectives.
13. The practice of "clean farming and forestry" in monocultures over large areas has resulted in the elimination of much farm and forest wildlife habitat, lowering our wildlife populations, loss of recreational opportunity, and impoverished ecosystems.
14. Agricultural and forestry practices as major contributors to airborne particles, especially dust production, which lead to serious climatic perturbations.
15. Irrigation techniques leading to salinized soils, poor drainage, destruction of natural aquatic systems, loss of marine production, and increased human disease.

IV - Public Relations and Publicity

1. Public relations programs that sell environmentally destructive "production" practices as "conservation" practices (especially to Congress for funding).
2. Exporting of modern, temperate zone agricultural and forestry technology to fragile ecosystems in the tropics where they are completely untested and where there exists a potential for serious and widespread damage to the ecology of tropical ecosystems.
3. Characterization of nature as an essentially hostile force that must be combated and subdued rather than our essential life-support system that must be understood and respected (i.e. bumper sticker - "Agriculture your life support system").
4. Environmental critics of agricultural or forestry technology are characterized as "preservationists" or "they want to turn back the clock to when the Seminoles occupied Florida."

APPENDIX 1

A PHILOSOPHY OF MAN'S ROLE IN HIS ECOSYSTEM

A clear understanding of the basic ecological principles that determine the functioning of ecosystems is absolutely vital to reaching a relationship between man and nature so that both may survive. Man's historically long treatment of natural constraints and limits as either non-existent or irrelevant has resulted in our abysmal ignorance of how natural systems function to support life. The nearly universal Expansionary Ethos of maximizing production and profits inevitably operates at the expense of complex and irreplaceable biological and ecological interrelationships, terminating in a badly degraded and impaired ecosphere unable to sustain man in a life style of sufficient quality to be termed "human". Perpetuation of policies that degrade the earth's long-term ability to support life is immoral and criminal. Narrow-sighted refusal to include proven ecological principles in resource management strategies is inexcusable.

"Progress," defined traditionally as "bigger" and "more", is a terminal illness that seals definitively the fate of life on Planet Earth. Today's survival values demand a redefinition of "progress" as: Those acts of man that enhance the quality of the human experience without impairing the earth's life-support systems.

Implementation of this definition would entail an evaluation of every human action in terms of its cost in energy, resources, and ecological degradation. We must abandon many of the traditional concepts of private enterprise, such as the "right" of the owner to do whatever he wishes with his land without regard to the impact of his actions on the health of that ecosystem and the "right" of the businessman to make a profit regardless of the effects of his actions on the social fabric. We must identify environmental abuse, even when profitable, as anti-social and irresponsible behavior at best, and often criminal.

Many sensitive cultures throughout our species' brief occupation of earth have recognized what the modern science of ecology is now rediscovering and documenting: That life is a precious and magnificent mystery and that all life is interconnected, closely coupled, and dependent on the natural processes of the earth. In order to preserve this delicate fabric, we must first recognize it as the supreme value, a value to be approached with intelligence, respect, and humility.

For example, manipulating the environment to favor the needs of certain wildlife species, usually for the benefit of man, is a fundamental technique in the art of wildlife management. If for passion, power, or profit, the wildlife manager began to utilize apparently unlimited energy, dollars, land, etc., to maximize the yield of a few

wildlife species at the expense of the long-term functioning of the ecosystem as agriculture has done, I would question his program and its value to the living community.

I have been a student or professional environmentalist for more than twenty (20) years. During that time, I have been especially interested and involved in the management of land and waters to produce biological materials for human consumption. I have witnessed agricultural technology (including forestry and ranching) become ever more intensive and consumptive in producing those biological materials of high market place value, always at the expense of other crops that might also have been produced if the system had been managed with a different yield strategy.

During this period of personal involvement, the very ability of the ecosystem to yield a variety of other biological crops, and often even the "cash" crops, has been reduced or destroyed. In my professional area of waterfowl and wetlands, the natural prairie potholes and marshes of the United States have been largely eliminated and their acreage sacrificed to low yield grain production rather than waterfowl and groundwater management. The same fate has befallen the South's millions of acres of swamp forests, but to produce soybeans for export and grassland for cattle. Much of our country's streamside and associated wildland habitat has been lost to "channelization" under the guise of Agriculture's small watershed conservation program.

I personally have encountered thousands of these and related practices on the land while working as a field ecologist over the past two (2) decades. They are going on everywhere in the world influenced by United States agricultural technology, but most inclusively in the United States. The intensity and cost of agricultural management continues to mount, while the decline of remnant wildlife communities and the malfunctioning of natural ~~ecosystems~~ accelerates. Ecologists charged with the management and stewardship of the wildlife resource are obligated to alert agriculturalists of the consequences of their abuse.

I believe society is making a serious, if not lethal, mistake in allowing agricultural technology to control its own intensity of ecosystem management. As a wildlife ecologist, it is my responsibility to society to speak out in an attempt to educate our people as to the ultimate consequences of current agricultural management strategies, especially as they influence wildlife communities.

Dr. George W. Cornwell
Gainesville, Florida
June 1972

CURRICULUM

VITAE¹

of

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School of Forest Resources and Conservation
University of Florida

Personal:

Born 12-4-29 in St. Joseph, Michigan (Berrian County)

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Married: Meryl Agnes Parren (Sawyer, Michigan)

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Biographical Directories:

American Men of Science - (The Physical and Biological Sciences)

World Who's Who in Science

Personalities of the South (1972)

Degrees:

B.S., Michigan State University, 1955, Wildlife Biology.

M.S., University of Utah, 1960, Conservation education and ecology.

Ph.D., University of Michigan 1966, Wildlife Biology, An Ecological
Reconnaissance of Helminth Populations in the Canvasback (*Aythya*
valisineria). (Dissertation Abstracts XXVIII (1):67-8233)

Teaching:

Experience -

New Troy and Galien High Schools, Michigan. Taught chemistry, physics,
biology, advanced math, 1955-1958.

University of Michigan, assisted major professor in several courses,
1959-1962.

Virginia Polytechnic Institute, Assistant Professor of Wildlife and
Outdoor Recreation, 1963-1967.

University of Florida, School of Forest Resources and Conservation, 1967-
present, Associate Professor of Wildlife Ecology.

University Courses Taught -

Wildlife Diseases (U. Mich.) 2 years as Grad. Teaching Fellow
Introduction to Wildlife Management (VPI) 3 years

Revised January, 1972

Ornithology (VPI) 3 years
 Principles of Wildlife Ecology (U. Fla.) 5 years
 Waterfowl Ecology (U. Fla.) 4 years
 Regulation of Vertebrate Pest Populations (U. Fla) 2 years
 The Ecosystem (U. Fla.) 1 year
 Numerous Individual Problem Courses, Seminars, Guest Lectures, and
 Team Teaching Courses.

Graduate Education -

Chairman or Co-Chairman

1 Ph.D. student
 20 M. S. students

Committee Member

4 Ph.D. students
 10 M.S. students

Other Professional Experience:

Michigan Department of Conservation, Conservation Aid, 1953-1955.

U. S. Fish and Wildlife Service, Biological Aid, 1956, Fairbanks, Alaska.

National Park Service, Ranger Naturalist, 1959. Olympic National Park.

University of Michigan, Research Assistant, 1960.

Delta Waterfowl Research Station, Station Pathologist, 1961-1962, Manitoba, Canada.

Honors and Recognitions:

Graduated with high honors, Michigan State University, 1955.

Michigan United Conservation Clubs Scholarship, 1955.

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Howard M. Wright Memorial Award in Wildlife Management, 1961,
 School of Natural Resources, University of Michigan.

National Science Foundation High School Teaching Fellowship,
 Summer, 1957; Summer, 1958; 1958-59.

Schoene-Rene Fellowship, University of Michigan, 1959-1960; 1962-63.

NSF Predoctoral Fellowship, 1960-1961; 1961-1962.

National Wildlife Federation Fellowship, 1960-1961.

Recipient of Florida Governor's Conservation Award, 1970.

Professional Activities:

- Forester, Xi Sigma Pi, Upsilon Chapter, U. Mich., 1961-1962.
- Vice-President, Florida Chapter of The Wildlife Society, 1968-69.
- President, Florida Chapter of The Wildlife Society, 1969-1971.
- Vice-Chairman, Alachua Conservation Council, 1968-69.
- Chairman, Alachua Conservation Council, 1969-1971.
- Trustee, Florida Conservation Foundation, 1969-
- Trustee, Florida Defenders of the Environment, 1969-
- Member, The Wildlife Society Publications Awards Committee, 1967-68
- Member, The Wildlife Society Comm. on Urban Affairs and Regional Planning, 1969-1971.
- Member, Scientific Task Force, Conservation 70's, Inc., 1970-
- Member, Governor's Natural Resources Committee, 1968-1970.
- Member, Conservation 70's Task Force on the Mirex Problem, 1970-1971.
- Member, Everglades Study Team, Central and South Florida Flood Control District, 1970 (report available).
- Chairman, Interstate 10 Environmental Study Team, Dept. of Administration-Bureau of Planning, 1970- (report available).
- Member, Interstate 75 Environmental Study Team. Florida Dept. of Transportation. 1970-1972.
- Member, Ecological Advisory Council, Florida Department of Transportation, 1970-
- Member, Florida Environmental Inventory Council, Department of Natural Resources, 1970-

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Report of the Special Study Team on the Florida Everglades. Submitted in August, 1970 to the Director, Central and South Florida Flood Control District. 42pp. mimeo. (copies available). Chairman, Charles M. Loveless.

Report of the Interstate 75 Environmental Study Panel. Submitted in September 1, 1971 to the Director, State of Florida Department of Transportation. 62pp. (copies available) Chairman, Carl E. B. McKenry.

Popularized Articles -

Approximately 20 generalized articles in such periodicals as Southern Farmer, Progressive Farmer, Virginia Wildlife, etc.

Books -

Cornwell, G. W. and C. J. Holcomb. 1966. Co-editors. Guidelines to the Development, and Management of Rural Recreational Enterprises. Bull. 301. VPI Coop. Ext. Ser., 425pp.

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Professional Societies and Related Organizations:

Sigma Xi

American Ornithologists' Union

Cooper Ornithological Society

Ecological Society of America

National Audubon Society

Florida Audubon Society

British Ornithological Union

Animal Behavior Society

Wildlife Disease Association

The Wildlife Society, Florida Chapter of The Wildlife Society, and S. E. Section of The Wildlife Society

Wilson Ornithological Society

National Parks Association

The Sierra Club

Wilderness Society

National Wildlife Federation

Izaak Walton League of America

American Forestry Association

American Museum of Natural History

Alachua Conservation Council

Conservation 70's

Zero Population Growth

Florida Defenders of the Environment

Florida Conservation Foundation

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Environmental Activist Fired By University

BY BEN FUNK

Associated Press Writer

GAINESVILLE. — Dr. George Cornwell, an environmental activist best known for his fight against farmers' use of persistent pesticides, has been fired from the University of Florida following a secret meeting from which he was barred.

Cornwell, associate professor of the Institute of Food and Agricultural Sciences (IFAS), was notified Jan. 13 by letter from Dr. John Gray, director of the School of Forestry, that his contract will not be renewed after June 30, 1973. He has been on the U-F faculty for five years.

"I believe my dismissal is a clear-cut effort to silence an effective critic by destroying his professional reputation," Cornwell said, as he demanded a public hearing "where all charges and evidence can be laid out."

Cornwell said the 12 tenured faculty members held a kangaroo court, denied admission to him and students supporting him and then took an oath of secrecy not to reveal the two-hour deliberations.

ENVIRONMENTAL leaders protested the action bitterly. Lyman Rogers, founder of the Conservation 70s movement, said Cornwell was being "crucified because he is constructive, innovative and courageous."

Rogers said Gray, whom

he called "a pawn who doesn't want to rock the boat," takes his orders from Dr. E. T. York, vice president of the university, and "there is no doubt in my mind that York is pressured by Doyle Conner, state secretary of agriculture."

Cornwell's public opposition to the use of DDT and other persistent pesticides angered the Department of Agriculture and the farmers. He also drew fire by opposing a plan of the forest industry to harvest small woodland and public forest lands which he said would "totally destroy the remaining wildland ecosystems in Florida forest habitats."

Four days after notice that he had been denied tenure, Cornwell appealed to university president Stephen C. O'Connell for a fair and impartial review.

He told O'Connell his tenure was blocked by "a small group within the university who were not equipped to cope with my free expression of environmental ideas and ideals."

"MY RIGHT to operate within the framework of academic freedom has been violated, as well as my right as a citizen to freedom of speech."

"I have a high degree of personal independence and an eagerness to question established territories and ideas. These should be continually tested or we will become intellectually constipated in our senility."

ed in our senility."

O'Connell has made no reply to Cornwell but he told the university newspaper, The Alligator, that Cornwell would "have to follow the appeals routes established for the university."

"I think this means he doesn't want to appoint a committee of environmental scientists on campus to review my tenure," Cornwell said, "although this is provided for in the University manual."

ANOTHER SOURCE of irritation against him, Cornwell said, was his active participation in the fight that stopped the Cross-Florida Barge Canal and saved the Ocala Valley from destruction.

Because of this battle, he said L. C. Ringhaver, one of the Jacksonville industrialists backing the canal, threatened to cancel a forestry scholarship he had given the school "because of a radical like myself on the faculty."

"It was many little episodes, like this, little pin pricks," Cornwell said.

"This is a case of a conservative, generally elderly, obstructionist, forest production-oriented faculty casting out of their midst a moderate, constructionist, environmental activist."

Cornwell is in the wildlife ecology division of IFAS, Gray's School of Forestry also falls under IFAS.

"GRAY IS A WEAK man," Rogers said. "He is the man who has pulled off this very clumsy effort to withdraw George's tenure. It is a definite attempt, under Department of Agriculture influence, to eliminate a man from the department of wildlife ecology."

Rogers said the effort to discredit Cornwell started after "he came up with a marvelous plan for a College of Environmental affairs, separate from the agricultural industry."

Cornwell charged recently that the wildlife ecology program was "undernourished." He said the forest department had rejected students for the wildlife program.

"THE ECOLOGY viewpoint is being suppressed," Cornwell said, "by the viewpoints of forestry and IFAS. There is great interest in the ecology movement. More and more students are interested in it."

"Florida needs graduates in wildlife ecology badly. We are dealing in a difference in philosophies between the ecological and the agricultural interests."

"In the forestry approach to the ecosystem, the motive is profit. The ecological approach is to maintain our wildlife and our natural ecosystems."

Gray contended that "the reason that wildlife is short of faculty is that the entire university is short of funds. The increase in wildlife enrollment came very quickly."

THE MIAMI HERALD
Thurs Feb 3, 1972

Land Grant College Alliance With Business Cited in Report

By CLIF CORMIER
Sun Education Editor

The nation's tax-supported land grant colleges and universities have come to serve almost exclusively an elite of private corporate interests while ignoring the most urgent needs of rural America, a Washington, D.C., private research corporation charged today.

Abandoning its historic mission under the 1862 Morrill Act, the agricultural college complex has allied itself with corporate agribusiness, seed and fertilizer companies and manufacturers of farm machinery, says a preliminary report of Agribusiness Accountability Project.

Jim Hightower, director of the project, released his report as a hypercritical indictment of the land grant concept — in a press conference in the nation's capital today.

Agribusiness Accountability Project is a public interest research and advocacy organization financed by the Marshall Field Foundation of Chicago.

The report is entitled, "Hard Tomatoes, Hard Times," the name coming from a tough-skinned tomato developed at the University of Florida adaptable to machine harvesting.

Hightower has this to say about the UF tomato, the MH-1:

"In describing the characteristics that make this tomato so desirable for machine harvest, the University pointed to the thick walls, firm flesh and freedom from cracks.

"It may be a little tough for the consumer but agricultural research didn't please everyone."

Hightower said the hardy tomato, which will eliminate the jobs of thousands of Florida farm workers; is harvested green then ripened in storage by application of ethylene gas.

According to Hightower, chemical, drug and oil companies "invested" \$227,253 in research at the UF's Institute of Food and Agricultural Science in 1970, accounting for 54 per cent of the research sponsored at IFAS by private industry.

The University of Florida is one of 118 land grant institutions. The land grant complex denotes three interrelated units: colleges of agriculture, state agricultural, experiment stations, and Extension service.

The research report claims three quarters of a billion dollars is expended in the nation's land grant institutions annually from appropriations of federal, state and county governments, "paying for everything from test tubes to experimental farms, from chalk to carpeting in the dean's office."

Research, says the report, is not the bargain that has been advertised. Strict economic efficiency, not people is the goal. In 1969 nearly 6,000 scientific man-years were spent on research at all state-agricultural experiment stations, but only 289 scientific man-years were spent on "people-oriented" research.

In rural housing, Hightower charges, the major share of research has been directed not to those who live in them, but to those who profit from the construction and maintenance of houses.

When research is turned to people-oriented projects it is of-

ten in the form of irrelevant studies of characteristics, "stemming more from curiosity than a desire to change conditions." Hightower lists as examples:

— University of Nebraska researchers surveyed football coaches in the state and got 60 per cent agreement that federally-sponsored school breakfast programs would benefit teenage athletes.

— Mississippi State University researchers discovered that families in poverty are not a single homogeneous group.

In the category of "research of the absurd" Hightower noted that Auburn and Penn. State used tax dollars to study heat-retaining properties of Astro-Turf. Purdue has spent "years and untold tax dollars" on athletic turfs for football fields and golf courses.

"While researchers play round with games and recreation, rural America is left to fall apart."

Hightower charges the greatest failing of land grant research is its total abdication of leadership:

"At a time when rural America desperately needs leadership the land grant community ducked behind the corporate skirt, mumbling apologetic words. Overall it is a pedantic and cowardly research system, and America is less for it."

The report alleges land grant policy is the product of a closed community.

"Administrators, academics and scientists, along with USDA officials and corporate executives have locked themselves into an inbred and even incestuous complex. Incapable of thinking beyond self-interests."

Extension Service (ES), the

outreach arm of the land grant complex, has the mandate of going among the people of rural America to identify and solve their farm, home and community problems, the report notes. However, ES has been preoccupied with efficiency and production. It has slighted the pressing needs of the vast majority of American farmers and other rural people.

"To an alarming degree, extension agents are little more than salesmen. The rural poor are poorly served, drawing band-aid assistance from the highly-visible nutrition aides program and irrelevant attention from the 4-H program."

Hightower calls for full-scale public inquiries, both in Congress and in state legislatures. There should be a General Accounting Office audit of the land grant complex, he said.

The research task force report also calls for an immediate end to racial discrimination within the land grant complex. It says legislation is needed to prohibit land grant officials

from receiving remuneration in conflicts of interests and prevent corporations from earmarking contributions for specific research that is proprietary in nature.

"The land grant colleges must get out of the corporate board rooms. They must get the corporate interests out of their labs, and they must draw back and reassess their preoccupation with mechanical, genetical and chemical gadgetry."

GAINESVILLE SUN (Fla.)
May 31, 1972

GAINESVILLE SUN (Fla.)
May 31, 1972

Background Of Agri Project

What is the Agribusiness Accountability Project?

The Sun learned through a spokesman in the Washington, D. C. office of the organization that it is a privately-funded research and advocacy corporation with a staff of 12.

Jim Hightower, the director, has been involved with farm worker advocacy. He served as a consultant to the National Broadcasting Corporation's controversial documentary of 1966, "Harvest of Shame," which dealt with the plight of migrant workers in Florida.

Hightower was a free lance writer, speech writer for Ralph Yarborough, former U.S. Senator from Texas, and an employee of the Rural Housing Coalition. He is a graduate of the University of Texas.

According to the spokesman "Hard Tomatoes and Hard Times," the title for the agribusiness research effort, was about six months in the making. A staff member named Susan DeMarco visited the University of Florida to gather data from IFAS. Nine other land grant campuses were visited.

Report Biased, York Says

Dr. E. T. York, vice president for agricultural affairs at the University of Florida, termed the Agribusiness Accountability Project report, "A distorted and biased picture; a very irresponsible report."

York noted that most of the report is critical of the entire system of land grant universities.

"I don't presume to speak for the whole system, but only as it relates to the University of Florida," said York after studying a copy of the report.

York labeled the comments about the UF-developed tomato which lends itself to machine harvesting, and thereby putting thousands of farm laborers out of work, as "pure unadulterated hogwash."

Actually, said York, there aren't enough farm workers

available in Florida to harvest the tomato crop by hand.

"Tomatoes are rotting in the fields because of lack of labor," he said. "We have now reached the point with many vegetable crops that if we can't harvest them mechanically they simply won't be grown."

Noting that the report criticizes farm mechanization in general, York said, without technology America would still be a horse and buggy nation.

"Americans have been freed from having to grow their own food. They have been able to leave the farm to become doctors, lawyers, and even critical writers."

York affirmed as true the comment that the newly-developed Florida tomato is ripened with ethylene gas, but he noted many other commodities are

ripened the same way.

Concerning the comment that nearly one-half of all privately-financed research at the Institute of Food and Agricultural Sciences comes from big chemical and oil corporations, York said the figure is only 8 percent of the total research budget.

"We do not contract with private sources or accept their grants unless it will be of benefit to us. We do not permit our faculty or staff to serve on private agricultural boards or related corporations."

York said he agrees with only one part of the report. That is the conclusion which recommends a full-scale Congressional and legislative inquiry into the role of big agriculture in land grant operations.

GAINESVILLE SUN (Fla.)

June 6, 1972

EDITORIALS

The Innocent Tomato

The MII-1 appears to be the nomenclature of a new weapon which Uncle Sam is trying out in Vietnam.

Actually, the MII-1 is a humble tomato developed at the University of Florida. It is especially tough-skinned and thus is genetically tailored for machine harvesting. This sort of research goes on all the time and has brought us broad-breasted turkeys and navel oranges and milk cows with terrific udders.

But the MII-1 has become a nationally known fall guy.

The MII-1 is singled out by a Washington outfit called the Agribusiness Accountability Project, non-profit and non-artisan and funded by the Ford Foundation. The Project is hypercritical of how land grant colleges spend \$750 million a year of federal, state and local tax money.

The Project charges the land-grant complex with serving "an elite of private, corporate interests" while the majority of farm workers and small town residents "are ignored or directly abused."

And the innocent little MII-1 is wrapped up in the Project's title, "Hard Tomatoes, Hard Times."

That is unfortunate for the University of Florida and its ingenious agricultural researchers. No doubt the MII-1 will be a very good thing for most of us, as the "elite of private, corporate interests" cut harvesting costs and put tomatoes on the bargain shelf.

But the Accountability Project's contentions about the nation's 118 land grant colleges are too cutting to be ignored. The most damning is the charge that in 1969 the land-grant complex spent nearly 6,000 scientific man

years on all research, but only 280 scientific man years on "people oriented" research. Other items:

- 1,126 Scientific man years spent on improving the biological efficiency of crops (like the MII-1), but only one scientific man year to improve rural income.

- 200 scientific man years on horticultural production for natural beauty, but only seven scientific man years for rural housing.

- 68 scientific man years on marketing efficiency, but only 17 scientific man years on causes and remedies of rural poverty.

- In Florida, the Agricultural Extension Service spends only 5.3 per cent of its time with the rural poor, most of that time on the highly visible nutrition programs.

- Also in Florida, 16 out of 100,000 man-days were spent in 1970 to help migrant laborers — an allocation of 0.016 per cent of Extension Service time.

The land-grant complex, said the Project, has played a most crucial role in the failure of rural America to hold its people, with the resulting influx into cities already overcrowded. And it added:

"At a time when rural America desperately needs leadership, the land-grant community ducked behind the corporate skirt, mumbling apologetic words. Overall, it is a pedantic and cowardly research system, and America is less for it."

Does that describe the University of Florida and its Institute of Food and Agricultural Sciences, a huge complex budgeting for \$22.6 million — almost one fourth of the University's overall budget? Chief E. T. York of the agricultural complex assures it does not,

that the Project presents "a distorted and biased picture: a very irresponsible report."

Okay. But a few solemn words do not a grave make, and the accusations of the Agribusiness Accountability Project are not so easily stifled.

Dr. York knows that, so he agrees a Congressional inquiry is proper. That is what the Agribusiness Accountability Project recommends. And U.S. Senator Adlai E. Stevenson III of Illinois plans to open up one segment of the subject with hearings June 19-20 of his Migratory Labor Subcommittee.

The subject needs even deeper probing. Self-examination will do the nation's land-grant complex no harm. And if the Accountability Project is proven wrong, so much the better.

Maybe Congress can clear the reputation of the besmirched MII-1.

Bath Water

The Agribusiness Accountability Project is semi-critical of 4-II clubs, which comprise the youth program of the various agricultural extension services.

We doubt if the Florida operation deserves that slap. And one reason is Woodrow W. Brown of Gainesville.

Mr. Brown has been with the Florida Cooperative Extension Service for 30 years. Since 1947, he has been associated with the 4-II program, and he spent most of his career developing the 4-II program on the statewide level.

He is retiring this month. And the event is worth noting because probably no single person has reached into the lives of more rural youth in Florida. It is fruitful work with built-in rewards.

When the Accountability Project labels 4-II as irrelevant, the splash you hear is the baby going out with the bathwater.

St. Petersburg Times

Editorials

*"The policy of our paper is very simple. — merely to tell the truth."**— Paul Poynter, publisher, 1912 - 1950*

20-A

Friday, February 4, 1972

Florida Needs Dr. Cornwell

At a time when the trumpets of environmental protection are being sounded across the state and nation, it is grimly ironic that the University of Florida is firing Dr. George W. Cornwell, an outspoken advocate of the cause in his field of wildlife ecology.

WHILE THE Legislature debates consolidation and upgrading of the various environmental agencies, a dozen members of the UF School of Forestry faculty have voted to deny Dr. Cornwell tenure, though his record indicates ample fulfillment of the criteria for permanent faculty status.

Dr. Cornwell, who contends that the clash of his environmental activism with the entrenched philosophy of the forestry school is the reason for his tenure denial, deserves a public review of the charges and evidence against him. University President Stephen O'Connell must see that he gets it.

But the Cornwell controversy is larger than one man and one program: It challenges the fundamental principles and purposes of the entire Institute of Food and Agricultural Services (IFAS), which is said to operate virtually as an autonomous university.

CREATED IN 1964 as the university's statewide agricultural research and educational organization, IFAS includes the College of Agriculture, the Agricultural Experiment Stations and Extension Service, and the School of Forestry. Its mission is to develop "the trained manpower to serve Florida's dynamic agricultural industry," helping it become "more efficient and improve its competitive position."

As an avowed handmaiden of the agricultural industry, IFAS is firmly committed to the productivity rather than the protection of Florida's forests and farmlands. The institute is not known for criticism of things like DDT spraying, commercializing forests and the Cross Florida Barge Canal.

But Dr. Cornwell is. And his good idea to create an independent "College of Environmental Affairs" rankles the IFAS establishment.

If Florida is to harmonize the demands of productive agriculture with concern for irreplaceable natural resources, it needs trumpet blowers like George Cornwell to train experts for this challenge of the future.

In Tenure Dispute

Leaders In Senate Support Professor

Dr. York

... inaccurate?

Secrecy In Case Draws Ire

Tribune Bureau

TALLAHASSEE — Senate leaders yesterday jumped to the defense of University of Florida ecology professor Dr. George Cornwell, a pesticide foe among pesticide promoters.

Senate President Jerry Thomas wants a full public airing of the issues that led a faculty committee to decide in secret that Cornwell should be denied tenure, an academic term for dismissal.

AND SENATE minority leader Sen. Warren Henderson, R-Venice, declared:

"I'll be a bitter foe of the persons responsible if George Cornwell is let go without due process."

He said, "I've reason to believe this is an attempt to quiet an outstanding conservationist."

In other developments of what is rapidly building as an academic freedom issue for the 1972 legislative session:

— **JAY LANDERS**, the governor's conservation aide, was gathering details of the controversy and will brief the governor tomorrow.

— **Florida Audubon Society** directors called for the governor to find out how it all happened.

— **And Dr. Cornwell**, in polite terms, said Dr. E. T. Yark, provost of the university's Institute of Food and Agricultural Services, was inaccurate with the truth in saying Cornwell hadn't been fired.

"I received a letter Jan. 13 from my director (Dr. John Gray, head of the Forestry School) telling me my contract will not be renewed after June 30, 1973. A few days later, I received a call from Dr. Gray asking if I could give the date of my departure and offering help getting relocated," Dr. Cornwell said.

"THAT TO me was a pretty clear dismissal," the professor said.

"He is an outspoken man and made some real contributions," Landers said. "A man like this is needed."

Henderson endorsed some investigation of the matter. "Somebody wants the demise of a professor who is an outstanding environmentalist who came up with the idea for a college of ecology and did

good work on Mirax," the senator said.

"There aren't many safeguards built into secrecy; this is government in the sunshine," Henderson said to Cornwell's complaint about the closed-door policy on professors.

CORNWELL had been on thin ice within the agricultural faculty for months. His outspoken opposition to the use of hard, non-target pesticides runs opposite to the position of Dr. Yark, and the institute, which promotes their use.

He also was called on the carpet by Dr. Gray. It has been reported, to explain his fight against Mirax, the fire ant chemical, eventually abandoned on an aerial broadcast basis by the U.S. Agriculture Department.

Sen. Thomas said Cornwell should have a full public hearing as he wants.

"A professor is in the truest sense an employee of the State of Florida and should not be treated any differently. Any board or committee, such as this faculty committee, that sits and passes in judgement on an agent of the state should be at a public hearing. I just cannot see why not," Thomas said.

HE NOTED the constitution reserved executive sessions

only for the senate, and then only in the case of suspensions. The only time the senate would ever invoke a closed session is if the testimony might be unfairly damaging.

Surely if the person wanted it in public, "let it all hang out," Thomas said.

"It appears those in the university system who constantly cry out for tenure, who contend it allows a professor to speak out without political reprisal, are themselves exercising that same reprisal."

One of Dr. Cornwell's complaints is that the 12-member faculty panel pledged itself to secrecy about their Cornwell discussions.

HE SAID that York, who Henderson said Cornwell wasn't fired only recommended for denial of tenure, was "putting up a smoke screen to cloud the issue and take the heat off."

Never to his knowledge, Cornwell said, has tenure been granted a professor after a negative vote by such a panel or his department head.

Gray has already said he would not recommend Cornwell for permanent status.

Cornwell said he wants to defend himself. "I think any unbiased review, will show I have served with distinction in the three areas of tenure service: Research, teaching and public service."

GAINESVILLE SUN
FEB. 6, 1972

Ecology College Seen Possible From Cornwell Controversy

By BEN FUNK
Associated Press Writer

The "sacking" of Dr. George Cornwell, a crusading university of Florida professor, could lead to realization of his most important goal — a college of environmental learning independent and free of outside pressures.

"It (the college) has got to come," said Sen. Warren Henderson, one of many conservationists angered when Cornwell was denied tenure in a secret faculty meeting. "It may be done by legislative action but that's not necessary. The Board of Regents could do it now."

Cornwell's Wildlife Ecology Division is under direction of the University's Institute of Food and Agricultural Sciences (IFAS), which is devoted to furthering the state's farm interests.

"Giving IFAS control of ecology is like putting the wolves to guard the henhouse," said president Lorin Lovell of Conservation 70s.

"The obvious answer is to make ecology a separate department, free of the intrigue of an agricultural hierarchy."

Henderson, a Republican from Venice who is one of the legislature's top environmentalists, said he had been "aware for some time that trouble was brewing for George. There always will be trouble for an outspoken conservationist who leans on agriculture."

"George is being sacked by the farm interests of this state. The ire of all conservationists should be brought down on these people."

At the time he was notified

Jan. 13 that his tenure was being ended, Cornwell was putting the finishing touches on a proposal for an independent "College of Environmental Affairs" to educate an army of "dedicated professionals" to enable Florida to save its environment.

"Today's college students will be our decision-makers and environmental managers of the 70s and early 80s," Cornwell said in his proposal which was completed only this week.

"They will be at their peak: work efficiency at a time when environmental skills will be most needed. They will determine whether Florida will save its natural heritage."

There have been charges that IFAS is suppressing Cornwell's division and denying admission to many applicants who wanted in. Cornwell is the only professor in the rapidly growing department of 81 students.

Dr. E. T. York, provost of IFAS, contended that Cornwell was denied tenure because his crusades — which included battles against DDT and other long-lasting pesticides — had taken time away from his teaching duties.

Cornwell, in an appeal to University president Stephen O'Connell for a public review of his case, retorted that he was fired because he challenged old "tunnel vision" ideas of an "obstructionist faculty."

The student Environmental Action Group said Cornwell's departure would be a "great loss" to the school. After his tenure was canceled, the students planted two oak trees in his honor in the university's

Plaza of the Americas.

At a meeting two days before Cornwell got his notice, 35 of his students told the university newspaper, The Alligator, that their department was being suppressed by IFAS.

"York is a very powerful man in this state," said one student. "The university has little control over him or his activities in IFAS. IFAS is funded by the Legislature and not by the university."

Five of the students, in a letter published in The Alligator Nov. 19, said the controversy revolved around philosophical differences "between the IFAS agricultural complex and the perspectives of wildlife ecology."

"IFAS is closely tied to the agricultural industry of Florida and identifies its primary responsibility as service to the industry," the students wrote.

"Wildlife Ecology's primary responsibility is development of sane management approaches to the use of our badly abused environmental resources."

"The real heart of the conflict is that wildlife is under direct administrative control of IFAS, which is in position to bring pressure to bear."

"We can find no other satisfactory explanation for the obvious administrative neglect and lack of financial support for the rapidly growing ecology program."

Six weeks before his tenure was ended, Cornwell charged that York was "among the nation's foremost advocates of agriculture's continued use of environmentally damaging pesticides."

ST. PETERSBURG TIMES
February 10, 1972

Cornwell Tenure Controversy Continues

University's View

The following guest column is a statement by Dr. E. T. York Jr., vice president for agricultural affairs at the University of Florida, concerning the current tenure dispute with Dr. George Cornwell.

By E. T. YORK JR.

Vice President For Agricultural Affairs,
University of Florida

I would like to comment briefly on a procedural matter which to this point has had a significant bearing on the Cornwell tenure issue.

I suspect that most people outside the university community do not fully understand the tenure review and granting process. Consequently, it is easy to understand the concern which some may have had when they read the initial stories concerning this case — stories which said that Dr. Cornwell had been fired or dismissed following a secret meeting of the faculty. Reference was made to a kangaroo court procedure, and the general impression was created that Dr. Cornwell was, indeed, summarily dismissed without an opportunity for a hearing or for due process to be followed.

President O'Connell has pointed out that everything that has been done thus far in connection with this case has been carried out strictly in accordance with university policies governing such matters. But it is important at this point to fully understand Dr. Cornwell's employment status and what has been done which could affect his continued employment in this university.

I don't intend to try to explain this on the basis of technical definitions of words. However, perhaps it is well to point out that "dismissal" according to Webster means "to remove from office, service or employment."

DR. CORNWELL has not been dismissed or separated or removed from of-



DR. E. T. YORK JR.

fice. He is still on the payroll, he is still working. He is currently undergoing the standard review process — a process which is initiated with the faculty and which is applied to all faculty members who are considered for tenure. This is a procedure which was formulated and approved by the faculty and which is similar to that followed by most other universities.

Following the action of the faculty of the School of Forest Resources and Conservation, Dr. Gray notified Dr. Cornwell that he was not recommending tenure, and in accordance with university proceedings governing such matters, wrote him informing him that his contract would not be renewed after June 30, 1973. University policies clearly state that action such as that taken by Dr. Gray can be appealed all the way to the Board of Regents. The only way he can be dismissed, separated, or otherwise have his employment terminated is for him to be unsuccessful in his appeals of the action taken by the faculty and the Director of his School. Only the Board of

Regents can award tenure — similarly only the Board of Regents can deny tenure if an individual wishes to avail himself of his right to appeal decisions not to recommend tenure made at lower administrative levels.

Therefore, to say that Dr. Cornwell has been dismissed — that he has been fired — is inaccurate. It is correct to say that he may be separated from employment if his contract is not renewed after June 30, 1973. However, such separation will take place ONLY after he has exhausted all the appeal procedures available to him.

President O'Connell has discussed the procedural aspects of this situation — what has been done — the course of action which will be followed from this point on. These procedures will provide an opportunity for a public hearing, and a full disclosure of all the facts surrounding this case.

This is an extremely important matter. We are dealing with the future professional life of a member of our faculty — as well as the integrity of this university and its reputation for dealing fairly and objectively with one of its members.

IN VIEW of the importance of this matter and in fairness to all concerned — to Dr. Cornwell and the university — I would ask the press, public officials — everyone — to wait until there has been an opportunity for a full disclosure and careful examination of the facts surrounding this case. Obviously, it is not wise to attempt to decide this important matter through public debate. Adequate procedures are provided for this to be done in an orderly process.

As you can no doubt appreciate, I have been very concerned that so much attention has been directed to the alleged role which agricultural interests in the state and in IFAS have played in this matter. Many, including some opponents of the press, have apparently concluded that these charges are true.

ST. PETERSBURG TIMES
February 10, 1972

This interpretive article is written by The Times' specialist in environmental issues.

By JAMES RYAN
Of The Times Staff

The normal thing to say at this point is something like, "The George Cornwell case has taken a new twist," and then go on to explain recent developments in the life and times of a man who seems destined to become a genuine "cause celebre."

In this instance, however, it appears that accuracy demands some slight differences in wording. Like "The George Cornwell case is being twisted," with an explanation how the twisting apparently is being done to obfuscate an issue.

Cornwell, director of the wildlife ecology program within the School of Forestry, said his protests against commercial timbering practices, widespread use of pesticides and other items taught or advocated by the School and its parent, the Institute of Food and Agricultural Sciences (IFAS), were responsible for his professional demise.

Dr. E. T. York Jr., vice president for agricultural affairs, insists, on this page and in a telegram to the press, that Cornwell has not been fired.

On Jan. 13, two days after 12 faculty members of the School of Forestry secretly voted against granting Cornwell a continuing contract, school director Dr. John Gray sent a letter to Cornwell. It said:

"By this letter I am notifying you that your contract for this fiscal year will be honored and that, if you desire, it will be renewed for the fiscal year, July 1, 1972, through June 30, 1973, but will not be renewed beyond that date."

Cornwell received a telephone call from Gray on Jan. 17. Gray asked when Cornwell was leaving and offered to help him re-locate.

Doesn't all of that indicate a dismissal?

"Indeed," York's telegram continued, "he (Cornwell) has only taken the first step of a detailed and well-defined procedure for tenure review established by the university and the Board of Regents."

To say the university's policy manual is "detailed and well-defined" on tenure would be like saying the Internal Revenue Service's Form 1040 is child's play for a blind illiterate.

But generally, it says Cornwell had the privilege of presenting additional information in his support to the faculty committee that voted against him. He tried. His students tried. They weren't even allowed to attend the meeting.

The question is why Cornwell has been instructed to follow those appeal procedures if, as York contends, he hasn't been dismissed?

The manual, incidentally, also says, and very clearly:

"Academic freedom and tenure exist . . . in order that society may have the benefit of honest judgment and independent criticism which otherwise might be withheld because of fear of offending a social group or attitude."

"For example, despite the widely publicized allegations that Cornwell has been denied tenure by the administration of the Institute of Food and Agricultural Sciences because of his views on pesticides and other environmental matters — the fact is that neither the Institute deans nor I have even considered the question of Dr. Cornwell's tenure," York's telegram said.

George Cornwell has been at the University of Florida for five years and during all of that time has not hesitated to make public his views opposing theories and practices of the Institute, its graduates and its friends in agriculture.

It is difficult to believe that the matter of his tenure was not considered by Institute hierarchy prior to or since the Jan. 11 vote.

It is possible, of course, that the question is one of semantics, hinging on a definition of "considered."

Another View



DR. GEORGE CORNWELL

At any rate, York's telegram said Cornwell's tenure is to be considered — whatever that means — in the "review process."

The wire concluded by saying, "We do not intend to attempt to resolve this important matter through public debate in the press."

Since the university is operated with public funds and since its staff is paid from the same source, there is more than a small question about whether the faculty committee's closed session Jan. 11 did not violate Florida's "Government-in-the-Sunshine" law.

The same question will be asked, probably much more loudly, if future actions are not taken in full view of the public and press.

The issue is, the allegations Cornwell has voiced in explanation of why tenure was denied him. He has made these allegations before, but now that the faculty committee seems to have ignored standard criteria in making its decision, the charges carry much more weight.

February 14, 1972

Voice of the People

Mon. Feb. 14

On the Sun's Opinion Page

Opinions and comments of Sun readers are welcome in the Voice of the People column. Letters must be signed and bear the writer's address. Names will be withheld if requested. A letter should not exceed 500 words and must be written on only one side of the paper. Poetry cannot be used. The Sun reserves the right to reject any letter or to shorten it, without changing the writer's meaning or content.

Don't Obscure the Issue

EDITOR, Sun: I believe it essential that the many interested and concerned people know the facts in the Cornwell-IFAS dispute so they may reach their own conclusions as to the credibility of all parties involved in the issue. Administrators have made several statements recently in the Sun designed to obscure the real issues.

I hope to clarify the following:

(1) Dismissal: On January 13, Director John Gray notified me of his recommendation of tenure denial and that my contract "will not be renewed beyond that date" (June 30, 1973). He confirmed this by telephone on or about January 17, asking if he could help me get relocated. As far as precedent is concerned, apparently no one in Florida's university system has ever been denied tenure at the departmental level and succeeded in having that decision reversed by a higher authority. This gives Director Gray's dismissal letter a definite intent of finality, although it has not discouraged me from attempting to right an unjust decision. President O'Connell's letter of February 7 confirms Dr. Gray's termination.

(2) The following of proscribed Regents and University of Florida Policy: Upon notification that the tenure vote was pending, I secured copies of the official

tenure policy, studied them intently, and have attempted to follow them to the letter. My first formal communication from a University of Florida administrator since Dr. Gray's dismissal letter was from President O'Connell on February 7. Dr. Gray's letter made no mention of appeal channels and the only suggestion from Dr. York was his statements to the press saying that I well know the appeals policy. In fact, no one in the University administration knew the proper way to handle the case because it is without precedent as Dr. O'Connell indicated on February 7.

My request to President O'Connell on January 17 was not that he intervene in the tenure decision, but that he appoint an "Area Committee" of ecologists and environmental scientists to review the case prior to my appeal to the Senate Committee on Academic Freedom and Tenure. My letter to President O'Connell was written on the advice of one of his Vice-Presidents! University of Florida Policy Manual, Chapter, 5, 5.52 PMF, Sec. III, A, provides for such an Area Committee, "broader or narrower than the College" to conduct an overall review. I still believe a committee consisting of my ecological colleagues would be the fairest way to evaluate my professional competency. Clearly, the forestry faculty is not my peer group in the subject matter discipline of ecology.

As for appeal of tenure denial, the University of Florida Policy Manual, Chapter 5, 5.52 PMF, Sec. III, B, stipulates that I can appeal "to a higher level in the chain of authority" if I do not "exercise the privilege of presenting further information and argument to the administrator or committee which has made the negative decision." I attempted to present all information and arguments to the proper IFAS faculty before the vote was taken, as did some of my students. Both myself and some of my students requested permission from Dr. Gray to make presentations to the faculty before their vote - we were denied such permission. As of this date, I have followed explicitly the very limited advice given by the University Administration and the guidance of the appropriate sections of the University of Florida Policy Manual. Allegations by IFAS administrators that I have failed to follow university procedures and policy are untrue and are an apparent attempt to confuse those who might identify with my plight.

(3) The Wildlife-Forestry-IFAS relationship: Wildlife is a "unit," "division," "program" or "curriculum" within the School of Forest Resources and Conservation. It has had a strong program identity of its own for a long time. The wildlife program is administered by the School of Forest Resources and Conservation and the School in turn

February 14, 1972

by IFAS. Therefore, any faculty member in wildlife or forestry is a faculty member of IFAS. We are made abundantly aware of this in the everyday conduct of our business. I fail to see how Dr. York can attempt to disavow administrative and program responsibility for an acknowledged unit of his Institute!

Comments on the Cliff Cormier story of February 8.

I have made no statement to the press that my "denial of tenure was ordered from high university and state officials." Rather, I have attempted to explain the strong philosophical differences between the voting IFAS faculty and myself on various aspects of man and nature, and the controversy surrounding Florida's degrading environment. There is no doubt that some administrators of the state and university desire my departure from the wildlife ecology program, but I have no knowledge of an order of any kind being passed to Dr. Gray or to the tenured faculty at the time of the tenure vote, nor have I ever mentioned to a reporter that I knew of such an order or request in effect at the time of the tenure decision.

You also inaccurately paraphrased President O'Connell's February 8 letter

in what seems to be a critical error. President O'Connell said: "You have not elected to ask Director Gray to reconsider his concurrence with the decision of the faculty as you have the right to do." Your article implies that an appeal to Dr. Gray "should have been the first step in appealing" and that I have "avoided appealing to York, who is next in the line of authority." The Policy Manual is the sole guideline and, as President O'Connell made clear in both his letter and our conversation, I have acted within the framework of that Manual by electing not to appeal to Dr. Gray and Dr. York. It is my intent to abide by the Policy Manual until I have exhausted "due process" within the University of Florida.

You quote Dr. Hervey Sharpe as saying that I cannot use IFAS editorial media to discuss my "own personal tenure problems." This is only fitting and I have not asked Dr. Sharpe for such use of the publicly-funded editorial services. However, Vice-President York has taken an obvious adversary position on my tenure case and has used these same publicly-funded officers for both news releases and the production of TV film cleverly worded to attack my credibility and infer improper conduct by my seeking an Area Committee review

through a higher authority, President O'Connell.

Thorough research of the IFAS editorial programs might upturn a "special" policy for handling Dr. Cornwell, his work and his students. Constructively, I have asked Dr. Sharpe for the opportunity to do IFAS radio and TV features on the recently proposed College of Environmental Affairs and Applied Ecology.

Thank you for your coverage of the tenure issue. I continue to seek a hearing by a group of my professional peers, to be followed by a public hearing with full disclosure of all charges and evidence. Tenure decisions are of far greater importance to the people than to the academic community and the teachers involved. If secrecy allows tenure decisions to become "popularity votes" rather than true and full evaluation of professional competency, then too high a price is being paid for tenure. I personally believe that no public business should be conducted in a shroud of secrecy, including decisions on who is competent to teach in our universities.

GEORGE CORNWELL
Associate Professor
Wildlife Ecology

The FLORIDA ALLIGATOR
February 14, 1972

Cornwell ready for tenure battle

By BRUCE J. KUEHN
Alligator Staff Writer



Dr. George Cornwell, a large hulking man with graying hair and an earthy personality, operates his campaign to win tenure from a quonset hut that is the Wildlife Ecology Laboratory. It is complete with leaky roof and no toilet.

The crowded confines of his office are piled high with books, environmental posters and bumper stickers to decorate the walls. Just underneath a brown water stain in one corner of the roof is a citation from former Gov. Claude Kirk to Cornwell for his service to the state and its environment.

CORNWELL'S OFFICE is now more crowded than usual as folders of news clippings and research material mount up to take over the little remaining space; and it's all aimed at preparing to defend Cornwell against whatever reasons for which he was denied tenure by 12 faculty members of the School of Forest Resources and Conservation.

Whenever those reasons become known to both Cornwell and the public, Cornwell will be ready.

Cornwell's decision to appeal his denial of tenure has renewed opposition to the tenure granting process by some faculty members and to tenure itself by members of the state legislature.

THE APPEAL also gave rise to confusion and surprise by the UF administration as it is the first time in UF President Stephen C. O'Connell's years in office that a professor decided to fight a denial of tenure by a department's faculty.

The confusion mounted when Cornwell wrote a letter to O'Connell asking O'Connell to "conduct a fair and impartial review" and suggesting the

appointment of an "ad hoc" committee to hold the review.

Cornwell is challenging the very basis for the existence of tenure. The Board of Regents Manual states that academic freedom and tenure exist "in order that society may have the benefit of honest judgement and independent criticism which otherwise might be withheld because of fear of offending a social group or attitude."

CORNWELL BELIEVES his tenure was blocked by "a small group within the university who philosophically were not equipped to cope with my free expression of environmental ideas and ideals which ran contrary to their own attitudes."

An example of disagreement between Cornwell and the men who run the Institute of Food and Agricultural Sciences (IFAS), the college which contains the forestry school, is Cornwell's public opposition to the use of DDT and other persisting pesticides while Dr. E.T. York, provost of IFAS, supports the use of DDT.

This represents only one source of conflict between Cornwell's ecology preservation ideals and the orientation of IFAS towards promoting "agribusiness."

BUT RECLINING in his office and constantly shifting his bulk against the squeaky protests of his chair, Cornwell cannot understand why he was denied tenure if the denial was based on the three criteria listed in the tenure policy rules — instruction, research and public service.

"I think this is a most unfair decision and I have faith that

somewhere in the governmental hierarchy I'll have a public hearing. This is what I have held out for and I must have a public hearing under the sunshine rules where the forestry faculty presents their charges and evidence and I have a chance to present my counter evidence," he said.

But Cornwell is "operating under a handicap."

ACCORDING TO PROCEDURE RULES, the reasons for a tenure decision by a college faculty are held secret. Cornwell cannot find out the specific reasons for the decision until they are presented before the university Senate Academic Freedom and Tenure Committee and until then, he has no way of preparing a specific defense.

However, if the decision was based on the three basic criteria, Cornwell seems to qualify for tenure.

Under the instruction criteria, Cornwell received a 3.5 rating on a 4 point basis in a recent faculty evaluation by students. Also under the instruction criteria is included the direction of thesis dissertations. From the years of 1968 to 1971 Cornwell directed 9 out of the 20 in the forestry school.

UNDER RESEARCH, which mainly consists of publications under the infamous "publish or perish" rule, Cornwell would again seem to be in good position. From 1968 through 1971, Cornwell has about 30 publications to his credit. Unfortunately, it is not possible to compare this with the publications of the tenured faculty members in the forestry school.

This information was requested from Dr. Howard Wilkowske, assistant dean of the IFAS experimental station which keeps track of publications.

However, Wilkowske was not present for a prearranged Alligator interview and left a note saying, "Since the Cornwell appeal has been referred to the Senate Tenure Committee, I think it inappropriate to comment or provide information to the press at this time rather than to the official review committee at the proper time."

UNDER PUBLIC, professional or university service, there can be no doubt of Cornwell's qualification. Besides receiving the Florida Governor's Conservation Award in 1970, Cornwell is widely recognized around the state for his work as evidenced by the protests over his denial of tenure by the Florida Audubon Society, Conservation 70's, Sen. Warren Henderson — leading conservationist, and the Environmental Action Group.

The tenure procedure rules state, "In most cases, promotion and tenure should require distinction in at least two of the three categories . . ."

Cornwell, on the basis of the above comparison, seems to meet the requirements.

THERE ARE OTHER general criteria relating to granting of tenure such as the candidate's health and talent. There is also a criteria relating to the candidate's ability "to work with a reasonable degree of effectiveness with his colleagues and students" and another relating to whether the "interests of the department, college and university will be better served by awarding tenure."

If Cornwell was denied tenure on the basis of the preceding two criteria, it would likely be taken as an implicit admission of Cornwell's contention that he was denied tenure because of philosophical differences with IFAS.

The FLORIDA ALLIGATOR
February 14, 1972



Dr. George Cornwell
... appeals 'unfair decision'

In a letter sent Friday to O'Connell in response to the press conference, Cornwell reiterated his appeal for an "area" committee to review the decision. "I am requesting an area committee broader than IFAS be selected to review my professional competency and performance before entering into a senate committee hearing.

CORNWELL WANTS the area committee to "consist of University of Florida, and perhaps other, ecologists and environmental scientists 'with broader than IFAS perspectives necessary to review my competency as colleagues in my ecological discipline."

Cornwell wants the area committee to give a full report before he makes an appeal to the senate tenure committee.

An area committee can be requested, as stated in the policy manual, and the recommendations of such a committee — along with the decision by the department faculty — are reviewed by a university-wide personnel board before final recommendation to the university president.

The Senate Academic Freedom and Tenure Committee is set up to hold hearings if a tenure decision is appealed by a professor and this is the only provision for a public hearing in the rules.

Cornwell came to UF in 1967 from Virginia Tech. University where he taught for four years. The 42-year-old environmentalist comes from St. Joseph, Mich. and earned his bachelor's degree from Michigan State. He gained his masters from the University of Utah and his doctorate in wildlife biology from the University of Michigan.

THE CONTROVERSY over Cornwell has also brought to light the sorry condition of the wildlife ecology division facilities as well as the poor facilities of the forestry school, as a whole under the otherwise rich IFAS.

The quonset hut consists also of one classroom with incomplete facilities and the division office. There are holes in the false ceiling, insect bait is scattered in around the bookshelves, water stains from leaks disfigure the floor as well



Dr. George Cornwell in his office
... campaigning from a quonset hut

GARY WOLFSON

as the ceiling and the heating is constantly breaking down.

BUT THE WHOLE school of forestry suffers from bad facilities and deteriorating buildings. Last quarter, Gray appealed to the Board of

Regents for funds to begin planning a new building to house the school.

The forestry school has a \$130,000 commitment from Board of Regents for planting a new building.

Whose Toes Got Stepped On?

EDITOR, Sun: I am quite disturbed to learn that Dr. Cornwell has been denied tenure. Having graduated from the School of Forestry in 1969, I admit that I have been out of touch with what has been going on behind the scenes at the School of Forestry. This letter may be premature because I have not yet gathered all the facts, nevertheless, I am compelled to write it, if for no other reason than to get myself into gear and involved in this serious matter. Denial of tenure, as I am sure you are aware, is a very serious matter. It connotes something professionally wrong with the man, in this case Dr. Cornwell. Having been a student of Dr. Cornwell, I find this connotation inconsistent with what I know to be fact.

Since Dr. Cornwell's arrival here he has been the most powerful motivating force and surely the most ambitious and dedicated faculty member in the entire School of Forestry, with no ex-

ceptions. His endeavors and accomplishments in building the wildlife program from almost nothing to what it is now in the face of almost insurmountable obstacles are a matter of record. His beliefs in what is good and bad for our environment have, apparently, stepped heavily on the toes of many people who consider the quality of this planet as a second page item. Thus far, this is all that I, or anyone else can believe to be the case.

The faculty members' responsibility for this tenure denial had better have hard facts to support this action. This University needs men like Dr. Cornwell, which, from my experience, is more than I can say for numerous faculty members who, having attained their tenure, are content with accomplishing the barest minimum. When you blemish a man's record; you had better know what you are doing.

JOHN VALENTI

Listen well to Dr. Cornwell

Editor:

Dr. George Cornwell has been denied tenure by his tenured colleagues in the UF Forestry School. I do confess my ignorance of many of the reasons behind the vote, but in view of some of Dr. Cornwell's known accomplishments the tenure decision appears startling to many colleagues.

The UF Wildlife Ecology Program has, under his direction, tripled in size. His talents as an enthusiastic and eloquent lecturer are well-known far beyond the University community. The Florida conservation movement counts Dr. Cornwell as one of their most effective members.

In 1970 he received a Conservation Award from the former Governor of our state, citing him for services beneficial to our state.

DR. CORNWELL has, on occasion, been an outspoken critic of some of the practices of the agri-business. It is no secret that he is somewhat of a maverick inside that conservative bulwark - the campus agri-community. What we see may thus be one of those classic academic conflicts for which the tenure haven was created in the first place.

This writer has no particular desire to pick a fight with a strong segment of our academic community. Neither is it my intention, having been raised on a farm, to understate the role of agriculture in our modern society.

However, like many others, I view with alarm the damage wrought upon our environment

by some of the excuses of an enormously powerful agri-industry.

GOVERNOR ASKEW hinted at some of these very real dangers at the recent dedication ceremony of the Florida Farm Bureau headquarters - not for deaf ears we hope. He warned that if we continue to squander her soil and water resources at present rates, "South Florida may become the world's first and only desert which gets 60 inches of rain annually."

The global evidence of the deleterious ecological effects of DDT and other persistent insecticides is overwhelming. The agriculturally advanced country of Sweden has banned it outright. Our agri-officials defend its continued use - a policy that can only delay the inevitable transition to less harmful agents.

After an unprecedented pressure campaign by the U.S. lumber industry, the often devastating results associated with intensive management to maximize timber yield have been extended to U.S. National Forests.

CLEAR-CUTTING. In addition to being an eyesore, exposes for several years the forest topsoil to erosion, thus permanently impoverishing the soil and muddying our rivers.

FERTILIZER and animal waste runoff is one of the greatest dangers to our water resources. Lake Apopka and many other Florida waters are in serious trouble due to added nutrients from our agri-business. We await eagerly news of the first big Florida farm to effectively solve this problem.

The relatively few natural areas remaining in our country are being cultivated at an increasing rate. Yet we are paying annually millions of dollars to big farm operations for not using surplus soil already under cultivation.

The list goes on and on.

Regrettably, the agri-community has produced very few self-critics. We remember the U.S. Forester who recently rebelled against the mismanagement of Ocala National Forest. He was "deported" to Utah. Now we hear Cornwell's cry in the wilderness.

HE IS URGING us not to get blinded by pulpwood yields but to save some of our mixed hardwood forests for the benefit of our wild furry friends - and ultimately for our own benefit.

The rest of the U.S. industry is responding in a gratifying way to the ecological challenge. Slowly but surely former mistakes are being corrected as we learn to control the technological machine we created in blind haste.

We challenge the agri-people to join in the search for solutions to the dilemma posed by the finiteness of our resources. To sledge a faculty member who champions radically new approaches for resource management is not in keeping with the best traditions of a great University.

Let time and new generation prove him right or wrong - but let us listen to him.

Olle I. Elgerd, Professor
Electrical Engineering

The FLORIDA ALLIGATOR
February 8, 1972

The secret to dumping a good war man

By GEORGE DUNCAN
Alligator Columnist

Dr. George Cornwell is an 'associate' professor of the Wildlife Ecology Division of the Institute of Food and Agricultural Sciences (IFAS). A particular brilliant professor! His list of publications on the subject of ecology would take several pages to list. In a recent student evaluation he rated a 3.5 out of a possible 4.0. For his service to the state he received a commendation from ex-Governor Claude Kirk, part of which stated, "We in Florida are fortunate to have such an individual as George Cornwell in our midst."

Sadly, Professor Cornwell may not be in our midst much longer. He has just been denied tenure at UF.

THE REASONS for his denial of tenure are unknown, for all meetings held for deciding tenure for professors are held in secret and the reasons for denying tenure are not made public, which puts Dr. Cornwell in the hapless position of not being able to defend himself because he does not know what he is charged with.

Dr. John Gray, Director of the School of Forestry, which is a division of IFAS, admitted he concurred in the recommendation of the faculty that Dr. Cornwell be denied tenure because it was "in the best interests of the school."

THE MAIN criteria for determining tenure falls in three categories: instruction, including regular classroom teaching... and all preparation for this work, including study to keep abreast of one's field; research and other creative activity; and public, professional or university service.

Dr. Cornwell passes these criteria superbly, however there are several more general types of guidelines for determining tenure which are (a) Does the candidate's talents fit the needs and plans of the department, school and university? (b) Will the candidate be able to work with a reasonable degree of effectiveness with his colleagues and students and (c) Will the interests of the university be better served by awarding tenure to the candidate than by seeking a replacement?

THESE ARE the reasons the faculty members of the School of Forestry were supposed to consider when deciding tenure for Dr. Cornwell. Whether they stuck to these criteria or not is anybody's guess. For all we know a majority of Dr. Cornwell's peers might have disliked the color of his ties and decided to refuse tenure on this account.

Dr. Cornwell is an outspoken man and it is well known he is at odds with many of his colleagues on issues ranging from the use of DDT to the handling of the Wildlife Ecology division of the School of Forest Resources and Conservation. He has publicly stated that the viewpoints of the Wildlife Ecology were being suppressed by the IFAS. His dismissal does not seem to contradict his statements.

IT DOES NOT TAKE keen insight to realize Dr. Cornwell's pronouncements have created discord with many of his peers and it would be naive to think the faculty of the School of Forestry did not let Dr. Cornwell's public statements influence their voting on his tenure.

Ironically the Board of Regents' Manual states, "Academic freedom and tenure exists... in order that society may have the benefit of honest judgment and independent criticism which otherwise might be withheld because of offending a social group or attitude."

UNFORTUNATELY, as Dr. Cornwell found out, the special group he offends with his independent criticism might be his peers which vote on his tenure.

In the citation given to him by the state ex-Governor Kirk called Cornwell a "Socratic gadfly" and said, "His impact has been felt all over the state and he should feel proud that whenever a group gathers to discuss some aspect of natural resource management in Florida his name is inevitably mentioned."

ONE SHOULD ask each member of the School of Forestry who voted against tenure for Dr. Cornwell if they have such a citation and if we in Florida are fortunate for having

them in our midst. Or ask how many of them have received even near a 3.5 on any student evaluations.

There are several reasons why institutions fire men. One reason is because of obvious incompetence, another is because of exceeding brilliance. Dr. Cornwell's case is the latter.

HE WAS MERELY too good in his job. He has an excellent command of his field and is not afraid to speak out on issues which concern his students and his state. But outspokenness inevitably rocks the boat and disturbs the security of other men who seek calm waters.

This is a tragic situation and its effects will be disastrous no matter what the outcome. Dr. Cornwell is going to appeal his case and, if he wins, he will be housed in a School where the majority of faculty members voted to fire him, leaving him in an atmosphere of bitterness and rancor. If he loses, the university will be deprived of a brilliant professor who can convey his brilliance to his students.

IN THE PAST few years other individuals have been denied tenure at UF, a few for their outspokenness on issues they believed in, one for refusing to conform to a law which was later ruled unconstitutional. In the future, to be denied tenure at UF may be a mark of distinction on a professor's record.

Even so, it is a devastating comment on this university that it could not carve out a niche for a man with the genius of a George Cornwell. Apparently, in the School of Forestry, intelligence and outspokenness go hand in hand with a denial of tenure.

One facet of this situation is clear; the rule which states the reasons for denying a member of the faculty tenure be kept secret should be changed. A man has the right to know what the charges are against him. If the rule is not changed, then the sessions of the faculty to decide tenure to a fellow colleague will reek with the atmosphere of the ancient Star Chamber, where a man was condemned without ever having a chance to defend himself.

The FLORIDA ALLIGATOR

February 8, 1972

Compelled

Editor:

As a graduate student in wildlife ecology I feel compelled to comment on Dr. York's statements of Feb. 4 concerning the present Ecology - IFAS conflict. I have been a member of a student group that has conferred repeatedly with IFAS administrators over the last several months. We have met with Dr. Gray, director of the School of Forestry many times, Dean Browning of IFAS several times and Dr. York himself, once.

Our contention as wildlife ecology students was and is that neglect of the wildlife ecology program by IFAS is apparent to anyone who will take the time to examine even the most superficial facts of the matter. We asked repeatedly for access to data present in IFAS files that would either prove or dispel such contentions. Such data exists and is easily obtainable. Dr. Gray has always been cordial to us and has always pledged complete cooperation while doing nothing to make the information requested available. Initially we were told that the information would be made available immediately, then, we were told that since we were calling for an outside evaluation of the wildlife ecology program and its handling by IFAS, we, as

students, didn't need the information and that we could see the data when it was supplied to the evaluating team. We tried repeatedly to gain access to the facts that Dr. York speaks of without success.

Dr. York says in his Alligator article: "We (IFAS) have had a greater commitment to wildlife than any other area; the facts of suppression just don't bear out." I would like to point out to Dr. York and everyone else involved or interested in this controversy that students of the wildlife ecology program have been trying to gain access to the facts contained in IFAS files for several months now and have been repeatedly denied access to those facts. Facts that will either confirm or dispel such contentions as the one that during fall quarter of this year the teaching ratio in wildlife ecology was approximately one teacher to seventy four students as compared to one to six in Forestry and one to eight in IFAS.

It appears to be high time for all involved to take a hard look at the facts, that is, provided Dr. York and IFAS are now willing to let the public see them. All the facts should be made known immediately. An impartial evaluation team should be set up immediately to gather and publish all the facts so that informed people can get at the truth of the matter.

Curry Hutchinson

Cornwell Incident

Revisited

By REG CROWDER

Times Correspondent

GAINESVILLE — The heavy wooden door to the president's board room opened. Dr. Stephen C. O'Connell, president of the University of Florida, walked briskly to the room.

He was about to explain how wildlife biologist George Cornwell hasn't really been fired, how Cornwell has refused to follow the proper procedure, how it would be improper for O'Connell to intervene.

Television cameras were being set up. Tape recorders were running. Notebooks and pencils were poised.

"FIRST, LET me tell you what has happened, not what is reported to have happened," said O'Connell. "And what has happened is pretty well explained in the letter I personally delivered to Dr. Cornwell yesterday afternoon. Permit me to distribute these copies please."

Letters are shuffled, then copies of regulations, then a statement from E. T. York Jr., vice president for agricultural affairs.

York said Cornwell is just "undergoing a standard review procedure."

"Obviously, it is not wise to attempt to decide this important matter through public debate," he said.

ACROSS the campus, Cornwell was lecturing to a class in the wildlife ecology laboratory, a gray quonset hut.

When the class was over, out came Cornwell, a man large of girth and height, open-collared shirt and a grin. He plopped into his chair in an office, propped his feet up on the table and asked, "Do you mind my feet?"

On Jan. 11, the 12 tenured faculty members of the UF School of Forestry voted be-



George Cornwell

hind closed doors to deny Cornwell tenure. The voting is confidential, but no reason

was given for the secret session.

Nobody will give the count of the vote, but the administration will say it was a "solid vote."

JOHN ORAY, director of the School of Forestry, informed Cornwell in a letter Jan. 13:

"By this letter I am notifying you that your contract for this fiscal year will be honored and that, if you desire, it will be renewed for the fiscal year July 1, 1972, through June 30, 1973, but will not be renewed beyond that date."

Cornwell looked up from the letter on his desk.

The walls of his office are covered with pictures of wildlife and bumper stickers from the ecology crusades that he has fought — DDT, the Cross Florida Barge Canal, an interstate highway route in Jacksonville.

"I HAVE been interested in wildlife since I was a boy," Cornwell explained. "I organized the first conservation club in my high school in 1940."

He helped edit the report that convinced President Nixon to stop the barge canal. "It was the proudest moment of my life when that came through," Cornwell said.

He has been a loud critic of DDT and other persistent pesticides. This has put him in direct opposition to the agricultural interests of Florida. That is why he thinks he has been fired.

"THE PEOPLE in the School of Forestry think in terms of profit, how to make money from the ecosystem," Cornwell said. "That means they are diametrically opposed to the methods of wildlife ecology."

The School of Forestry falls under the authority of York and the Institute of Food and Agricultural Sciences (IFAS). "I believe my dismissal is a clear-cut effort to silence an effective critic by destroying his professional reputation."

Lyman Rogers, founder of the Conservation 70s movement, has contended that because Cornwell's statements have angered the Florida Department of Agriculture and the Florida agri-business industry, these forces have pressured York and Gray to get rid of Cornwell.

IN HIS formal statement at a press conference Tuesday, York attacked newspapers

that reported that criticism:

"As you can no doubt appreciate, I have been very concerned that so much attention has been directed in the alleged role which agricultural interests in the state and in IFAS played in this matter. Many, including some segments of the press, have apparently concluded that those charges are true."

For example, the very first day after the stories concerning this case appeared in

the state press, one prominent newspaper carried an editorial which in several instances was factually incorrect and which was highly critical of the role which so-called agricultural interests have played in this matter."

HE DID NOT name the newspaper, nor specify the "factually incorrect" instances. More importantly, however, York did not deny that the charges are true.

That would have been difficult in view of the manner in which the University of Florida catalog describes IFAS:

"The provost for agriculture (York) for the university coordinates the functions of this unique research and development program, which serves the state's multi-billion-dollar agricultural industry — Florida's most important industry...."

"Developing the trained manpower to serve Florida's dynamic agricultural industry is the mission of the resident instruction function of IFAS...."

"THE MISSION of the research division of IFAS is directed at developing new and improved technology to enable Florida's agriculture to become more efficient and improve his competitive position...."

"The agricultural programs at the University of Florida have, without question, been a major contributing factor in the development of Florida's multi-billion-dollar agricultural industry. The resources of these education research and development programs are committed to assisting all segments of the agricultural industry with a more complete development of Florida's agricultural potential."

Cornwell believes that since his route of appeal takes him through that well-documented philosophy, he has, in fact, been fired.

February 15, 1972

The Cornwell Letters: An Offer Spurned

By JAMES RYAN
Of The Times Staff

Dr. George Cornwell of the University of Florida, who contends that "he has been fired because his views are contrary to those of his colleagues," has been given an opportunity to bypass much of a draw-out process in appealing his case.

But Cornwell, associate professor of wildlife ecology, doesn't want to go directly to the University Senate as President Stephen O'Connell has suggested.

As an intermediate step, he wants his record as a teacher and researcher evaluated by an "area committee" of ecologists and environmental scientists and says this group should not necessarily be limited to the Florida faculty.

THIS SITUATION was revealed Monday in copies of letters exchanged last week by O'Connell and Cornwell.

O'Connell's letter expresses a fear that Cornwell's public revelation of the conflict might result in intervention "by the Legislature, other state officials or the public itself."

It also indicates that O'Connell feels that Cornwell has been fired, something that Dr. E. T. York of the Institute of Food and Agricultural Sci-

ences (IFAS) repeatedly has said has not happened.

CORNWELL'S WILDLIFE ecology program is within the School of Forest, Resources and Conservation, which is a part of IFAS.

Cornwell has contended that his outspoken criticism of production-for-profit practices by his school, and IFAS resulted in a vote by school faculty Jan. 11 to recommend against granting him tenure.

Both York and the Forestry School administrator, Dr. John Gray, have denied this, but Cornwell contends that a non-partisan review of his professional record will show that the faculty vote could not have been limited to his qualifications.

YORK AND GRAY also have denied that Cornwell has been fired, but in his letter Feb. 7, O'Connell said that after the faculty action Gray "notified you that your employment here would be terminated on June 30, 1972."

O'Connell said he believes that it would be "unwise and improper" for him to hear and consider Cornwell's appeal unless he first takes it to Gray and York.

He suggested that Cornwell take his case to the University Senate's Academic Freedom and Tenure Committee "for relief of what you contend to

be an infringement of your rights."

Cornwell has said, in effect, that he can't get a fair shake from fellow faculty in the School of Forestry.

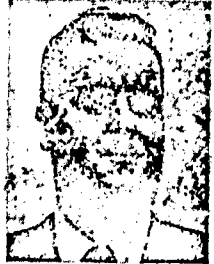
HE SAID in reply to O'Connell that there is "serious doubt" that they are "colleagues" or a "peer group," and he questioned their "adequacy to be the sole-judge of my professional credentials and competency."

He repeated a request to O'Connell that a committee with disciplines more compatible to his own be appointed.

Although the university's policy manual seems to provide for such an action by the president, there is no record of it ever having been done.

In his letter, O'Connell rebuked Cornwell for making his plight public. O'Connell said there is "an ever-present danger . . . that the decision in tenure matters may be removed from joint action of the faculty and administration and taken over by the Legislature, other state officials or the public itself."

IF ACTIONS such as that taken by Cornwell are "proper," said O'Connell, "then we must also expect public and official interference in a purely university matter when the decision is whether or not to grant tenure to one who is not in public favor."



GEORGE CORNWELL
... rejects offer.



STEPHEN O'CONNELL
... offers appeal bypass.

In reply, Cornwell said he doubts that there is "any such thing as a 'purely university matter.'"

He said he believes that the university community "exists to serve humanity" and that he sometimes suspects "that much of its energy and budget go into serving itself."

Who should be allowed to teach at state universities "may well be a decision that should not rest solely with the university community," he said.

GAINESVILLE SUN (Fla.)
February 19, 1972

O'Connell Tells Cornwell Review By Area Committee Inappropriate

President Stephen C. O'Connell Friday advised Dr. George Cornwell that an area review committee as requested by Cornwell in appealing his denial of tenure at the University of Florida would not be appropriate.

Cornwell, who was not recommended for tenure by his School of Forest Resources and Conservation faculty, had requested a review of his case by a committee which would include environmental scientists and ecologists.

Cornwell, a wildlife and ecology professor, said the faculty of the forestry school, a division of the Institute of Food and Agricultural Sciences, (IFAS) are not true peers.

Replying to the request, O'Connell noted that while the university's policy manual does provide for area committees broader in makeup than a single faculty, such committees are for further screening of a faculty recommendation for, and not against, tenure of an individual.

"Further," said O'Connell, "it is obvious that review by an area committee would be a step in an administrative appeal route which you have stated you do not wish to follow."

Cornwell appealed directly to O'Connell instead of requesting a review by Dr. John Gray, director of the forestry school, or Dr. E.T. York, vice presi-

dent for agricultural affairs.

The university president then advised Cornwell that his other recourse was the review by the Academic Freedom and Tenure Committee of the University Senate.

Later in the continuing exchange of correspondence, Cornwell requested his case be heard by an area committee.

In a statement Thursday, York said Cornwell has subjected Gray, the forestry faculty and himself to repeated criticism through the press. York indicated Cornwell is avoiding either of the procedural avenues of appeal provided by the policy on tenure.

"Instead, he continues to carry his case to the public through the press and by other means in an apparent effort to enlist support, if not intervention, from public officials and others outside the university," said York.

The IFAS provost urged Cornwell to avail himself of the opportunity for a hearing, "which he has had for over one month."

Commenting on a remark by Cornwell, that, "who should be allowed to teach at state universities may well be a decision that should not rest solely with the university community," O'Connell replied that final responsibility for tenure approval does not rest solely on the university, but with the lay Board of Regents.

ST. PETERSBURG TIMES
February 19, 1972

Cornwell Switches Tenure Bid Tactics

By REG CROWDER

Times Correspondent

GAINESVILLE — George Cornwell, the University of Florida wildlife ecology instructor who says he is being fired because of his convictions, will appeal to the University Senate Committee on Academic Freedom and Tenure.

Cornwell stated his intentions Friday, after receiving a letter from University President Stephen C. O'Connell, closing the door to an evaluation by an "area committee" of fellow ecologists.

SINCE RECEIVING a letter Jan. 13 from John Gray, director of the School of Forest Resources and Conservation, informing him that he would be denied employment after June 30, 1973, Cornwell has asked for an "area committee" evaluation.

An area committee is provided by university policy when the customary evaluating group wouldn't be qualified to pass judgement on an instructor's tenure. This is what Cornwell contends.

Cornwell believes that the philosophy of the School of Forestry and the Institute of Food and Agricultural Sciences (IFAS) is in conflict with the principles of wildlife ecology.

"With President O'Connell's letter, the way is clear to go to the faculty senate committee," said Cornwell. "Until the letter today, though, the door was still open for an area committee."

"WHILE THE University Senate, in the light of your position, wish to consider providing area committees for

review of matters such as yours, as an intermediate step prior to appealing to the senate committee, it has not yet done so," wrote O'Connell. "Nor has such procedure been established by any administrative or Board of Regents action.

"I see no reason to do this now," he said.

O'Connell said his letter "specifically eliminates the area approach as a feasible step prior to a senate hearing."

In another letter delivered to Cornwell Friday, Gray repeated his refusal to give grounds for recommending against tenure for Cornwell.

Gray did say he would ask the opinion of several other faculty members on whether reasons for recommending he should tell Cornwell his against tenure.

"I WILL advise you whether or not I will furnish detailed written reasons for my recommendation after I have had the opportunity to consider the recommendations of the A.A.U.P. and these two Senate committees," wrote Gray.

Several national organizations have offered legal assistance to Cornwell.

"I haven't accepted because when these organizations come in on something like this, they take over," he said. "I wish we could get back to the original issues — the fairness or unfairness of tenure procedures and the anti-ecology bias of IFAS."

Cornwell said he will need legal counsel to carry his appeal to the senate committee.

IN A statement distributed for release Thursday, E. T.

York, provost of IFAS, criticized Cornwell but joined in asking for a public hearing, not by an area committee, but by the university Senate Committee on Academic Freedom and Tenure.

In his letter to Cornwell Friday, O'Connell seemed to say the area committee could be used only to deny tenure, not to obtain it.

"It is clear that the provisions for an area committee, which is permissive and not mandatory, was intended to provide further screening of a departmental faculty recommendation for, not against, tenure, and/or promotion," wrote O'Connell. "Further, if it did apply to a negative departmental decision, as in your case, it is obvious that review by an area committee would be a step in an administrative appeal route which you have stated you do not wish to follow in your appeal."

Cornwell contends that an appeal through the administration would be senseless because it would be made to Gray, who already has recommended against his tenure. York has frequently spoken against critics of agribusiness practices such as use of DDT, and finally to President O'Connell. No UF president has ever reversed a recommendation against tenure.

Ecology groups such as the Environmental Group and the Wildlife Society probably will join with other organizations to create a fund to supply Cornwell with legal services before the university Senate committee.

The FLORIDA ALLIGATOR
February 21, 1972

York complains of criticism

Cornwell left 'no choice' except senate committee

By BRUCE J. KUEHN
Alligator Staff Writer

UF President Stephen Q. O'Connell has notified Dr. George Cornwell that an "area" committee is not appropriate for reviewing tenure decisions and urged Cornwell to appeal to the University Senate Academic Freedom and Tenure Committee.

Cornwell said, "I now have no choice but to go directly to the senate committee."

CORNWELL also said he always had the intention of going before the senate but he had desired an area committee to review the decision first.

O'Connell replied in a letter Friday to Cornwell's request for an appointment of an "area" committee to review his denial of tenure by the School of Forest Resources and Conservation.

An "area" committee consists of faculty members "more inclusive than the department

but may be either broader or narrower than the college," states the University Policy Manual. However, O'Connell and Cornwell disagree apparently on what the makeup of such a committee could be and on its area of jurisdiction.

O'CONNELL said in his letter that an "area" committee is "intended to provide further screening of a departmental faculty recommendation for, not against, tenure..." In this interpretation, the only way Cornwell can appeal his denial of tenure is to go before the senate tenure committee.

O'Connell continued in the letter, "I find nothing in any of the University policies or procedures or in logic or reason to support your statement that 'Review by an area committee is a procedural step intermediate and enroute toward judicial review by the Senate Committee on Academic Freedom and Tenure.'"

Though O'Connell refused to appoint an "area" committee, he also pointed out that "an area committee for IFAS (Institute of Food and Agricultural Sciences) would represent the varied departments of IFAS, but would not be expected to represent other areas of the campus."

CORNWELL had suggested that the "area" committee could be comprised of University of Florida, and perhaps other, ecologists and environmental scientists with broader than IFAS perspectives...

O'Connell also said IFAS has a standing "area" committee but its function is not to review negative decisions on tenure by the various departments within IFAS.

O'Connell urged Cornwell to take his case before the senate tenure committee and said it "should be the most impartial of any group that could be

(See 'Cornwell' Page 7)

The FLORIDA ALLIGATOR
February 22, 1972

Let's fire forestry, not Cornwell

By KEITH HAUSER
EAG Administrative Director

I think it's about time that a few facts were given on Dr. Cornwell's tenure denial. The barrage of rhetoric has to be cleared in order to make any intelligent conclusions.

The Tenure Committee's decision was supposed to be based on three general areas: research, teaching, and public service. Dr. Cornwell has excelled in all three. Cornwell has published 60% more research in the form of graduate thesis chairmanship than the next highest tenured Forestry professor, and four times more than the second highest.

DR. CORNWELL has one of the heaviest teaching loads among the Forestry faculty. He also counsels about 50 undergraduate students and is the day-to-day professional contact for the 30 plus students in the Wildlife curriculum. His average work week is 60-70 hours. Despite the heavy load, his students have given him a rating of 3.5 on a 4.0 scale on their teaching evaluations for the fall quarter of 1971-72.

His public service record has also been outstanding. He is a member of the Department of Transportation's Ecological Advisory Board, participated in the Governor's Conference on Water Management in South Florida, and received the Governor's 1970 Conservation Award.

The Tenure Committee's case wears a bit thin.

In an attempt to discredit Dr. Cornwell, President O'Connell insinuated that Cornwell hasn't been going through the proper appeals channels. Now, however, he has decided that Dr. Cornwell has been following the rules, after all. This is exactly what Cornwell has been saying. Cornwell cannot get a fair hearing from Dr. Gray, who conducted the original Tenure Committee meeting, or from Dr. York, who sees Gray frequently on the tenure matter and has been indirectly involved from the onset of the controversy. Only through an open hearing, conducted by his peers under sunshine rules, can Cornwell receive a just decision.

DR. GRAY HAS TOLD ME that his Tenure Committee meeting, from which Cornwell was barred, "was no Kangaroo court." Can Dr. Gray give another definition to a meeting of a group hostile to the man being evaluated, who ignores the pertinent facts, intent only on imposing their own intolerant prejudices?

Gray said that he actually did Cornwell a favor by holding this meeting because, he says, by law he could have just phoned each faculty member and asked if they thought Cornwell should receive tenure without any discussion whatsoever! Gray's reason for barring Dr. Cornwell was that Cornwell probably wouldn't be able to work well with any faculty members that he knew had voted against him.

It's a grotesque parody of justice when intradepartmental harmony is held above a man's basic right to defend himself or even to know what he stands accused of.

SOME INTERESTING THINGS happened while I was doing research for Dr. Cornwell to help prepare his case. When I tried to get a list of the courses taught, the names of the teachers, and the number of students in forestry during the last several years, I was turned away by Mr. Voyles of the Registrar's Office. He said I would have to receive permission from Dr. Gray before I could see the information. Since when has a course listing been

confidential material? I met this type of obstructionism many times.

I asked Dr. Browning of IFAS to be allowed to review the travel vouchers used by the faculty of the Forestry School. I was referred to Tigert Hall, from there to Johnson Hall, and from there back to IFAS on the floor above Dr. Browning. There they told me that I couldn't see the information.

Any records of traveling done by faculty members at the expense of the citizens should be open to the public.

Last Wednesday, I was trying to get some information from Dr. Cornwell's personnel file (with his permission), but I was told that there "wasn't room" for me to look at it there, and that they would xerox it and give it to me Thursday afternoon. On Thursday morning, Dr. Cornwell received a call from Director Gray who said they had "gone through" the file the night before and "that it was now ready for xeroxing!" It is obvious that there is a concerted effort to keep Dr. Cornwell from preparing his case.

EVER SINCE HE ARRIVED here, Cornwell has been opposed by members of IFAS. He is paying the price for being an environmentalist among a college of loggers and agribusinessmen.

Despite Dr. York's claims that Wildlife Ecology is IFAS's priority program, it is actually the most ignored program in the University. Wildlife Ecology is crammed into a tin hut which used to serve as Flaver's grocery store. The ratio of students to faculty in Wildlife Ecology now is 41 to 1, compared to about 6 to 1 for the rest of Forestry. For most of 1971, Dr. Cornwell was the only Wildlife faculty member available to students in the program.

Dr. Gray claims that this is because Wildlife Ecology has increased very quickly in the last few years. That is untrue. In 1967, when Cornwell joined the faculty, 41 per cent of the Forestry students were in Wildlife. In the last 5 years, that figure has risen to 57 per cent. This small increase does not account for the wildly disproportionate student to faculty ratios.

Dr. Cornwell is one of Florida's most dedicated conservationists. Despite his heavy workload, he is also a director of Conservation '70's, trustee of Florida Conservation Foundation, and past president of the Florida Wildlife Society. Cornwell is extremely devoted to his work, and he probably spends more time with his students than any other Forestry professor.

We cannot let a man be dismissed from this University because of the petty prejudices of a few unthinking men. Cornwell must have an open public hearing conducted by his peers, not by those opposing him.

HE IS BEING SILENCED by those who oppose his ideas on environmental management. Those doing the silencing are the same spiteful moribund minds that brought you last spring's mass arrests, the firing of Marshal Jones, astro turf, the Loop Road, the driving out of Dr. Ricci, the firing of John Parker, the ban of the Egg and Sperm Manual, the Gainesville Golf and Country Club, the censoring by the AAUP and the American Association of Law schools, the future firing of Ken Megill, and much, much more.

If Dr. Cornwell is denied a fair hearing, then we will come even one step closer to the administration's twisted concept of how to make UF "First in the South, Second to none in the nation."

Gainesville Sun

Vol. 97, No. 319

GAINESVILLE, FLORIDA, TUESDAY, JUNE 6, 1972

PRICE 10c

Cornwell 'Portrait' Drawn at Hearing

By SKIP PEREZ
Sun Staff Writer

A man of "outstanding leadership" yet one whose "self-centered nature" required he have the "yard."

A man whose salary rose from \$12,000 in 1967 to \$17,000 this year, yet one who often "stifled intercommunication" in seminars.

A man who was "biased" toward his forestry colleagues, yet one who turned down a six-month visiting professorship and a possible job offer at Cornell University.

These varied word pictures of Dr. George William Cornwell emerged Monday during the marathon opening day hearing into the controversial wildlife professor's charges he is being unfairly terminated.

An associate professor of wildlife, Cornwell came here in February of 1967. This past January Cornwell was notified by Dr. John Gray, director of the School of Forest Resources and Conservation, that under university tenure policies that school's faculty had voted to terminate Cornwell effective June 30, 1972.

Cornwell contends he is being fired because his controversial

views on ecology and pesticides anger his agricultural colleagues.

But attorney James Quincey, representing Gray and the forestry school, said Cornwell knew his position was in danger; that he had even gone to the extent of saying he would resign, and that several students had complained of his abrasiveness.

Cornwell's attorney, Michael Bryant, contends the Sinderman Doctrine — a federal court decision in which it was stated if a professor has a "reasonable expectation of continuing employment" he cannot be fired without cause — applies in the Cornwell case and thus the burden is on the administration to justify firing Cornwell.

Quincey, on the other hand, contends the doctrine does not apply in situations similar to the University of Florida's where a tenure or probationary period of employment exists.

Frequently smiling at friends in the audience which never numbered in excess of 50, the retired Cornwell eventually took the stand in his own defense about 7:30 p.m.

Before taking his position here in 1967, he said he was

"well aware of the zones of tension. If you will, one approaches on how you manage the ecosystem."

He later added he was not surprised at the eventual decision to fire him, saying: "I understood they (faculty) voted, but that he (Director Gray) was the decision-maker."

As for criticism of his activities, Cornwell said: "I received very, very little criticism from them (Gray and faculty colleagues) actually."

In the opening arguments earlier Monday afternoon, Quincey stated Cornwell did "not develop a single formal research project since he has been here."

In his testimony, Cornwell replied in the past 18 months he had submitted seven research project proposals, but that on three occasions they had been sent back to him by the school administration before ever getting to the review committee level.

On the Cornell University visiting professorship, he said he was to have gone for a six-month period beginning in September of 1971, but that Director Gray informed him this would not be possible since this would have left the school without a wildlife professor.

"I made it clear to Director

Gray that this was Cornwell's way of screening an eventual applicant," said Cornwell, while adding a job offer there "was not a primary reason" for his interest.

"I find it difficult to believe that an administration who intended to terminate you would not allow you to leave," said Cornwell of the Cornell offer which was made in early 1971. "I interpreted this as a vote of confidence in a way — an indication of administration support."

He admitted to being "aggressive and at times overbearing" in his early seminar session with students. Some "student hostility" resulted from his approaches, he said, which resulted in several students leaving "with some of their scars."

Quincey called a former Cornwell student, Michael Lennartz who is now a research wildlife biologist with the U.S. Forest Service in Lehigh Acres.

Saying he had a seminar under Cornwell in the fall of 1967, Lennartz charged Cornwell had "a very biased attitude" toward forestry.

Lennartz, who eventually received his master's degree in forestry, said he, two other students and a professor met with Cornwell about a year later in the fall of 1968.



(This photo by Steven Tomlinson)
ATTORNEY AND PETITIONER
 Michael Bryant (standing) and George Cornwell

Meeting at the ABC lounge, they presented a list of grievances to Cornwell who "sulked in the booth," according to Lennartz. The professor asked Cornwell to "bury the hatchet," but Lennartz recalled Cornwell's reply was: "Grown men don't bury the hatchet."

On cross examination, Lennartz estimated about 18-12 students were enrolled in the seminar in question. He said he was never selected as representative of the class; that the class never got together on its own to discuss Cornwell's teaching practices.

While calling Cornwell a man of "tremendous ability" and "outstanding leadership ability," Dr. Kenneth Swinford, assistant director of the forestry

school, said Cornwell had a "self-centered nature — one who had to have the last say in anything that came along."

Cornwell was doing "irresponsible counseling," said Swinford, adding this resulted in six or seven students counseled by Cornwell being suspended during one quarter.

During the afternoon segment of the hearing, Dr. Robert Bryan, university associate vice president for academic affairs, testified for three hours on the various steps in hiring and termination at the university.

Dr. Manning Dauer, chairman of the five-member academic freedom and tenure committee, requested Bryan to provide figures to the committee

of the percentage of assistant and associate professors in both the university as a whole and the Institute of Food and Agricultural Sciences separately who were terminated during the last full year in which figures are available.

Asked by Quincey if a professor who was "going in a separate direction" than his department should expect continuing employment, Bryan replied: "It could be he is trying to develop a new program and turn the department around."

Bryan continued: "In a university there has to be room for conflicting philosophies, for conflicting ideas. If there isn't we don't have a university. I would hope this does not occur (denying tenure) at this university because of different ideas."

Testimony ended about midnight, with Dr. Dauer announcing the panel would reconvene July 17 to hear oral arguments. In the meantime, he said, the attorneys will file written briefs on the motions.

If the committee decides the Zindermann doctrine does apply in the Cornwell instance, the university must prove Cornwell's academic freedom and constitutional rights were not violated. If the committee decides it does not apply, then the burden is on the Cornwell side to prove the charges.

Dauer said the committee in the past has overruled tenure findings of schools within the university and that the president had upheld these findings. All action is subject to approval by the president.

THE FLORIDA TIMES-UNION, JACKSONVILLE, TUESDAY, JUNE 6, 1972

No Prior Firing Warning, Cornwell Tells UF Panel

By LYNNE JEWELL
Times-Union Staff Writer

GAINESVILLE — Dr. George Cornwell, the University of Florida wildlife ecology professor fighting his tenure denial, said the first indication given to him his appointment would not be renewed was when he received a letter his employment would be terminated.

During testimony Monday evening, Cornwell, testifying for the first time, told the five-member faculty hearing panel that he received a letter from his chairman, Dr. John Gray, this past January stating that his job would end on June 30, 1973.

That was after the tenured faculty members of the School of Forest Resources and Conservation voted to deny Cornwell tenure.

Cornwell later stated there was never any statement from Gray indicating he would be denied tenure. He did say, however, that he attempted to increase channels of communications with his faculty colleagues, at Gray's suggestion.

"I received very little criticism from them actually," he said at another point. "Sometimes, there would be a newspaper article."

The 43-year-old professor said Gray "didn't talk much to me the last months" after Cornwell said he asked for an investigation of the wildlife ecology program, followed by what he termed a "series of episodes."

Purpose of these first hearing sessions is to determine if Cornwell had "expectations" of receiving continuous employment.

It was announced by panel chairman Manning Dauer that written briefs by both coun-

sels will be filed by June 16 and oral arguments will be held on July 3, followed by the panel's determination.

Earlier in the day, in his opening statements, attorney Michael Bryant, representing the petitioner, stated that he would show his client had "expectations for continuous employment" with the university.

Local attorney James Quincy, counsel for Gray, told the panel, "You will find through the evidence presented that he (Cornwell) in five years developed a single formal research project that has been accepted. You will find inner-conflict existed with the graduate students. You will find he had been told by the director and other faculty members his tenure was in doubt..."

"YOU WILL FIND he wrote letters to people outside the university that he was going to resign and sever relationships with this university. He told Dr. Gray this.

"No man under these circumstances could complain or be caught by an abrupt surprise."

The major part of the afternoon session was taken up with testimony by Dr. Robert Bryan, associate vice president for academic affairs, who answered questions relating to the university's tenure policy.

At several points, Bryan was asked by Dauer to research further and bring information back, such as the statistics on the number of non-tenured assistant and associate professors who are granted tenure after five years and the number who aren't.

AMENDED PETITION TO THE UNIVERSITY OF FLORIDA SENATE
COMMITTEE ON ACADEMIC FREEDOM AND TENURE
GEORGE W. CORNWELL, PETITIONER

I. STATEMENT OF JURISDICTION AND FACTS

1. This Petition is submitted by George W. Cornwell, Associate Professor of Wildlife Ecology to the University of Florida Senate, Committee on Academic Freedom and Tenure, to complain that the faculty of the School of Forest Resources and Conservation at the University of Florida, its Director and the University of Florida are denying him tenure and are preparing to separate him from the University on grounds that are violative of Petitioner's academic freedom and his rights under the Board of Regents Operating Manual, the University of Florida Policy Manual, the 1940 AAUP Statement of Principles on Academic Freedom and Tenure, the United States Constitution, and the Florida Constitution.

2. This Petition is submitted to the Committee on Academic Freedom and Tenure pursuant to Section 7.1 of the by-laws of the University of Florida Faculty Senate and pursuant to Article V of the University of Florida Constitution. It is submitted at the suggestion of President Stephen C. O'Connell.

3. Petitioner was appointed Associate Professor of Wildlife Ecology at the University of Florida School of Forest Resources and Conservation on February 1, 1967 and has continued in that capacity until the present.

4. On December 28, 1971, Dr. John L. Gray, Director of the School of Forest Resources and Conservation, notified the tenured faculty of the School of Forest Resources and Conservation that a meeting to consider candidates for tenure would be held on January 11, 1972 and that one faculty member, Dr. George W. Cornwell, was eligible for consideration at that time.

5. On January 11, 1972, the tenured faculty of the School of Forest Resources and Conservation, by individual secret ballot, expressed their opinion as being against the granting of tenure to the Petitioner.

6. On January 13, 1972, Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, notified the Petitioner that he would not recommend the Petitioner be granted tenure.

7. On January 13, 1972, Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, notified the Petitioner that his contract of employment would not be renewed after June 30, 1973.

8. On January 17, 1972, Petitioner requested the advice of University of Florida President Stephen C. O'Connell concerning the actions of the tenured faculty and Director of the School of Forest Resources and Conservation.

9. On February 7, 1972, President Stephen C. O'Connell notified the Petitioner that a pre-condition to any Presidential action on the Petitioner's employment status was a petition to the University Senate Academic Freedom and Tenure Committee and appropriate findings and recommendations by that Committee.

10. On February 7, 1972, President Stephen C. O'Connell notified the Petitioner that it would be unwise and improper for him to hear Petitioner's appeal without its having been considered by responsible administrators in the Institute of Food and Agricultural Sciences.

11. Based on the policy statements of the Institute of Food and Agricultural Sciences administration, Petitioner requested on February 11, 1972 that the President appoint an "area committee" broader than the Institute of Food and Agricultural Sciences as provided for in the University of Florida Policy Manual, Chapter 5, 5.52 PML, Section 3(a) to review his tenure status.

12. On February 14, 1972, Petitioner requested from Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, a detailed written statement of the reasons why he and the tenured faculty voted against the granting of tenure to the Petitioner.

13. On February 18, 1972, President Stephen C. O'Connell denied the Petitioner's request for an area committee specified in the University Policy Manual, Chapter 5, 5.52 PHI, Section 3(a).

14. On February 18, 1972, the President reiterated his suggestion for the Petitioner to take his complaint to the Academic Freedom and Tenure Committee.

15. On February 18, 1972, Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, denied the Petitioner's request for a detailed written statement of the reasons why the tenured faculty voted against, and he recommended against, granting the Petitioner tenure.

16. On February 25, 1972, Petitioner notified the Chairman of this body of his intention to file a petition for review of the actions of the Director and tenured faculty of the School of Forest Resources and Conservation.

17. On March 6, 1972, Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, notified the Chairman of this body that Mr. James S. Quincey had been retained to represent Dr. Gray in the Cornwell tenure proceedings.

18. On March 8, 1972, Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, notified the Petitioner that he could not provide the reasons why the tenured faculty voted against granting him tenure.

19. In a March 8, 1972 letter to Petitioner, Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, provided the only explanation received by Petitioner as to the reasons for the Director recommending against the granting of tenure to Petitioner.

20. On March 13, 1972, Chairman of this body was notified by Mr. James S. Quincey, Attorney at Law, that he had been retained to represent Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation.

21. On March 23, 1972, Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, notified the Petitioner that he would not provide a list of all publications, papers, etc. authored by members of the faculty of the School of Forest Resources and Conservation because such information could not be released without the consent of each faculty member involved.

22. On March 23, 1972, Dr. John L. Gray, Director and Chairman of the School of Forest Resources and Conservation, notified the Petitioner that the use of that School's secretarial staff and facilities was not available to the Petitioner for the review of the tenured faculty and the Director's decision against granting him tenure.

II. SUMMATION OF CLAIM

1. Petitioner's appointment and the University practice and procedure provided Petitioner with an expectation of re-employment requiring any termination to be for cause with appropriate notice and hearing.

2. Petitioner has not been advised of the cause or causes for his termination in sufficient detail to fairly enable him to show any error that may exist in violation of his right to academic freedom and due process as guaranteed by the United States Constitution and the Florida Constitution.

3. Petitioner has not been advised of the names and nature of the testimony of witnesses as to cause or causes for termination in violation of his right to academic freedom and due process.

4. Members of the tenured faculty of the School of Forest Resources and Conservation in their consideration and vote against the granting of tenure to Petitioner failed to apply established guidelines for tenure consideration as enunciated in Section 2 of the Board of Regents Operating Manual, Chapter 5 of the University of Florida Policy Manual and the 1940 AAUP Statement of Principles on Academic Freedom and Tenure resulting in a denial of Petitioner's right to academic freedom and his constitutional rights to freedom of speech, equal protection and due process.

5. Members of the tenured faculty of the School of Forest Resources and Conservation failed to provide Petitioner with a reason for their vote against the granting of tenure in violation of Chapter 5 of the University of Florida Policy Manual and the constitutional requirement of due process resulting in the denial of Petitioner's academic freedom.

6. Petitioner fulfills and exceeds the established criteria for tenure consideration outlined in Section 2 of the Board of Regents Operating Manual, Chapter 5 of the University of Florida Policy Manual rendering unstated reasons by members of the tenured faculty of the School of Forest Resources and Conservation to be improper and in violation of Petitioner's academic freedom.

7. The Director of the School of Forest Resources and Conservation's consideration and recommendation against the granting of tenure to Petitioner failed to apply the established guidelines as enunciated in Section 2 of the Board of Regents Operating Manual, Chapter 5 of the University of Florida Policy Manual and the 1940 AAUP Statement of Principles on Academic Freedom and Tenure resulting in a denial of Petitioner's right to academic freedom and his constitutional rights to freedom of speech, equal protection and due process.

8. Each of the reasons stated by the Director of the School of Forest Resources and Conservation for his recommendation against the granting of tenure to Petitioner is impermissibly vague and fails to meet the standard of Chapter 5 of the University of Florida Policy Manual and due process resulting in a denial of Petitioner's academic freedom and his constitutional right to due process and equal protection.

9. The general criteria stated in 5.52(c) of the University of Florida Policy Manual:

1. Do the candidate's talents and resources fit the needs and plans of department, college, and university?

2. Are the candidate's health and habits such as to indicate that he will be able to maintain the level of activity which has earned him his nomination?
3. Will the candidate be able to work with a reasonable degree of effectiveness with his colleagues and students?
4. Will the interests of the department, college, and university be better served by awarding tenure to the candidate than by seeking a replacement?
5. Has the candidate's behavior indicated an awareness of the relationship between academic freedom and academic responsibility, such as is indicated in the October 31, 1970 statement of the Council of the American Association of University Professors entitled "Freedom and Responsibility?"

is an unconstitutionally vague standard permitting arbitrary and capricious actions by tenure reviewing officials resulting in a denial of academic freedom and due process to Petitioner.

10. The Director of the School of Forest Resources and Conservation's consideration and recommendation against the granting of tenure to Petitioner was based on philosophical and policy differences with the Petitioner and certain personality traits of the Petitioner irrelevant and immaterial under the established guidelines for tenure consideration outlined in Section 2 of the Board of Regents Operating Manual, Chapter 5 of the University of Florida Policy Manual and the 1940 AAUP Statement of Principles on Academic Freedom and Tenure violating Petitioner's right to academic freedom and his constitutional rights under the First Amendment of the United States Constitution.

11. An established bias on the part of administrators of the Institute of Food and Agricultural Sciences against the Petitioner's philosophy and public statements in his field of academic and professional endeavor prevented the Petitioner from receiving a fair and unbiased tenure review within the Institute of Food and Agricultural Sciences denying the Petitioner his right to due process, freedom of speech and academic freedom.

12. Unfounded criticisms of the Petitioner were manufactured by certain members of the tenured faculty and the Director of the School of Forest Resources and Conservation to delay and deny the Petitioner tenure in violation of Petitioner's academic freedom.

13. The President's denial of an area committee for review of the Director and tenured faculty of the School of Forest Resources and Conservation's recommendations against the granting of tenure is a denial of due process and Petitioner's academic freedom.

14. The President's denial of Petitioner's request for University compensated counsel after Petitioner indicated financial hardship and the University provided counsel for the other parties to these proceedings is a denial of Petitioner's due process and academic freedom.

15. The lack of academic freedom and due process permeates the entire tenure review afforded Petitioner to date and invalidates the review and ensuing recommendation.

WHEREFORE, Petitioner requests this Committee recommend that he be granted tenure, appropriate actions to be taken to insure Petitioner's academic freedom and constitutional rights, and such further relief as may appear proper.

(S)

MICHAEL L. BRYANT
Counsel for the Petitioner
607 N. E. 1st Street
Gainesville, Florida 32601

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing has been furnished to Stephen C. O'Connell, President of the University of Florida; Thomas S. Biggs, Attorney for the University of Florida; and James S. Quincey, Counsel for Dr. John L. Gray and the tenured faculty of the School of Forest Resources and Conservation, all of Gainesville, Florida, this 4 day of May, 1972.

(S)

Of Counsel

IN RE: PETITION TO THE UNIVERSITY OF FLORIDA SENATE,
 COMMITTEE ON ACADEMIC FREEDOM AND TENURE
 GEORGE W. CORNWELL, PETITIONER

In response to the request of the Committee on Academic Freedom and Tenure for a more definite statement of Petitioner's philosophy referred to in paragraphs ten (10) and eleven (11) of the Summation of Claim in the Petition before the Committee, the following statement by Petitioner is submitted as a supplement to Dr. George W. Cornwell's Amended Petition:

A BRIEF SUMMATION OF PETITIONER GEORGE W. CORNWELL'S
 PHILOSOPHY OF MAN'S ROLE IN HIS ECOSYSTEM

A clear understanding of the basic ecological principles that determine the functioning of ecosystems is absolutely vital to reaching a relationship between man and nature so that both may survive. Man's historically long treatment of natural constraints and limits as either non-existent or irrelevant has resulted in our abysmal ignorance of how natural systems function to support life. The nearly universal Expansionary Ethos of maximizing production and profits inevitably operates at the expense of complex and irreplaceable biological and ecological interrelationships, terminating in a badly degraded and impaired ecosphere unable to sustain man in a life style of sufficient quality to be termed "human". Perpetuation of policies that degrade the earth's long-term ability to support life is immoral and criminal. Narrow-sighted refusal to include proven ecological principles in resource management strategies is inexcusable.

"Progress", defined traditionally as "bigger" and "more", is a terminal illness that seals definitively the fate of life on Planet Earth. Today's survival values demand a redefinition of "progress" as: Those acts of man that enhance the quality of the human experience without impairing the earth's life-support systems.

Implementation of this definition would entail an evaluation of every human action in terms of its cost in energy, resources, and ecological degradation. We must abandon many of the traditional concepts of private

enterprise, such as the "right" of the owner to do whatever he wishes with his land without regard to the impact of his actions on the health of that ecosystem and the "right" of the businessman to make a profit regardless of the effects of his actions on the social fabric. We must identify environmental abuse, even when profitable, as anti-social and irresponsible behavior at best, and often criminal.

Many sensitive cultures throughout our species' brief occupation of earth have recognized what the modern science of ecology is now rediscovering and documenting: That life is a precious and magnificent mystery and that all life is interconnected, closely coupled, and dependent on the natural processes of the earth. In order to preserve this delicate fabric, we must first recognize it as the supreme value, a value to be approached with intelligence, respect, and humility.

For example, manipulating the environment to favor the needs of certain wildlife species, usually for the benefit of man, is a fundamental technique in the art of wildlife management. If for passion, power, or profit, the wildlife manager began to utilize apparently unlimited energy, dollars, land, etc. to maximize the yield of a few wildlife species at the expense of the long-term functioning of the ecosystem as agriculture has done, I would question his program and its value to the living community.

I have been a student or professional environmentalist for more than twenty (20) years. During that time, I have been especially interested and involved in the management of land and waters to produce biological materials for human consumption. I have witnessed agricultural technology (including forestry and ranching) become ever more intensive and consumptive in producing those biological materials of high market place value, always at the expense of other crops that might also have been produced if the system had been managed with a different yield strategy.

During this period of personal involvement, the variability of the

ecosystem to yield a variety of other biological crops, and often even the "cash" crops, has been reduced or destroyed. In my professional area of waterfowl and wetlands, the natural prairie potholes and marshes of the United States have been largely eliminated and their acreage sacrificed to low yield grain production rather than waterfowl and groundwater management. The same fate has befallen the South's millions of acres of swamp forests, but to produce soybeans for export and grassland for cattle. Much of our country's streamside and associated wildland habitat has been lost to "channelization" under the guise of Agriculture's small watershed conservation program.

I personally have encountered thousands of these and related practices on the land while working as a field ecologist over the past two (2) decades. They are going on everywhere in the world influenced by United States agricultural technology, but most inclusively in the United States. The intensity and cost of agricultural management continues to mount, while the decline of remnant wildlife communities and the malfunctioning of natural ecosystems accelerates. Ecologists charged with the management and stewardship of the wildlife resource are obligated to alert agriculturalists of the consequences of their abuse.

I believe Society is making a serious, if not lethal, mistake in allowing agricultural technology to control its own intensity of ecosystem management. As a wildlife ecologist, it is my responsibility to Society to speak out in an attempt to educate our people as to the ultimate consequences of current agricultural management strategies, especially as they influence wildlife communities. I fail to see how my lawful activities, adversary to what many consider to be extremely unwise agricultural exploitation detrimental to the long-term interests of man, can be regarded as anything other than the healthy intellectual ferment and debate that needs to be cultured within the university community.

IN RE: PETITION TO THE UNIVERSITY OF FLORIDA SENATE,
COMMITTEE ON ACADEMIC FREEDOM AND TENURE
GEORGE W. CORNWELL, PETITIONER.

In response to the request of the Committee on Academic Freedom and Tenure, the following is submitted as a supplement to paragraph 11 of the Summation of Claim of Dr. George W. Cornwell's Amended Petition to the Committee. The following outline details the areas where there is "an established bias on the part of administrators of the Institute of Food and Agricultural Sciences against the Petitioner's philosophy and public statements in his field of academic and professional endeavor".

I - Chemicals

A. Pesticides

1. Use of defoliants and herbicides and their effect on natural vegetation, crop yields, and faunal populations associated with the lost plant communities.
2. Use of DDT and other chlorinated hydrocarbon insecticides.
3. Metal (lead, arsenic, mercury, cadmium, etc.) pollution associated with pesticides and other chemical uses.
4. Disruption of natural predator-prey balances in vertebrate and invertebrate populations by use of chemicals (i. e. current fire ant control controversy).
5. Disruption of natural predator-prey populations by widespread predator control programs to protect livestock.
6. Disruption of aquatic and terrestrial food chains. (i. e. current fire ant control program).
7. Sacrifice of long-term yields from the natural ecosystem (birds, fish, shellfish, mammals, etc.) as a result of global poisoning.
8. Loss of aesthetic and recreational values associated with animal deaths, contaminated lands and waters, and sterile habitats associated with use of pesticides.
9. Impact of broad scale usage of biocides on human health, including farm and migrant workers.
10. Disruption of natural genetic patterns in animal evolution by chemical pollutants.
11. Endangerment and extinction of a wide range of animal life with the threatened or real loss of their priceless genetic material and ecological function.

12. Use of the scientific method to review and utilize the published research on pesticidal effects.

13. Adoption of biological and integrated insect pest control methodology in Florida.

B. Fertilizers

1. Over-nutrition of terrestrial and aquatic systems.
2. Adverse environmental impact of fertilizer production on both land, air, and water.
3. Human health impairment associated with high nitrate levels in domestic water supplies and human foods.
4. Damage to soil building organisms, detritivores, etc.
5. Polluting and eutrophying of marine waters leading to planktonic disturbances and abnormalities. (i.e. red tide).
6. Loss of humus and organic matter in the soil resulting from reliance on inorganic fertilizer.
7. Disregard of the values of organic fertilizers (human and domestic animal waste, discarded food, etc.) thus both wasting these materials and contaminating continental water supplies with them.
8. Economic waste through overuse and misuse of fertilizers, pesticides, fossil fuels, and other chemicals.
9. Discrepancies between energy consumed in production and utilization versus energy yield (i.e. failure to compute an energetic balance sheet).
10. Disrupting the global nitrogen cycle by causing an excess accumulation of nitrates in aquatic systems.

II - Physical Land-use Practices

1. Agronomic practices designed to accommodate machine limitations rather than being designed to fit biological and ecological controls and feedback mechanisms that have evolved within natural ecosystems over eons: the attempt to industrialize living, dynamic systems; i.e. clearcutting, monoculture, compaction, channelization, effects of forest management on stream and lake environments, drainage, elimination of economically "undesireable" trees and plant communities, etc.).
2. Stabilization of environments in a disclimax by unsound use of fire, livestock, water level manipulation, chemicals, ditching, etc.
3. Elimination of wetland sites of low forest production value, either for use as minimal timber producing sites or for future real estate speculation.
4. Manpower dislocations caused by becoming machine intensive.

rather than labor intensive (if you cannot resolve human labor problems, eliminate them with a machine).

5. Drainage of most of North America's glacial potholes with resultant loss in waterfowl and other wildlife productivity.

III - Miscellaneous Agricultural and Forestry Practices and Abuses

1. Detrimental effects of overgrazing on vegetation and wildlife.
2. Undesirable chemicals in food; questionable nutritional quality (i. e. excessive fat deposits in beef, etc.); and loss of chemical diversity in foods produced by modern methods.
3. Reluctance to investigate alternate methods of food production, such as the management and harvest of wild animals populations in lieu of or as a supplement to the use of typically domestic species.
4. Environmentally adverse forest management practices: extensive areas of monoculture, elimination of den and nest trees, elimination of mast producing trees and shrubs, drainage of flood plain and swamp forest types.
5. Over-consumption and wasteful use of water for irrigation, nematode control, etc. Agriculture consumes 2/3 to 3/4 of the fresh water in the world.
6. Lowering of ground water levels with drainage and excessive use, as well as a drastic loss of surface waters stored on the upper watersheds. As a result, Florida and many other regions of the U.S. are growing increasingly arid.
7. Undesirable economic dislocations associated with farm subsidies.
8. Crop wastage with market place dislocations.
9. Livestock and poultry as serious pollution factors, especially to ground and surface waters.
10. Reduction of air quality associated with woodland burning, crop burning (i. e. sugar cane), controlling ambient temperature (citrus-frost throat), the burning of fossil fuel in machinery without effective control devices, etc.
11. Tendency to over-use the land, to cultivate and crop land that because of slope, soil, etc. should have remained in a less intensively managed state.
12. A commitment by the agri-forestry industries to maximizing production, yield, profits, and competitive growth without adequately considering the environmental costs associated with these objectives.
13. The practice of "clean farming and forestry" in monocultures over large areas has resulted in the elimination of much farm and forest

wildlife habitat, lowering owl wildlife populations, loss of recreational opportunity, and impoverished ecosystems.

14. Agricultural and forestry practices as major contributors to airborne particles, especially dust production, which lead to serious climatic perturbations.

15. Irrigation techniques leading to salinized soils, poor drainage, destruction of natural aquatic systems, loss of marine production, and increased human disease.

IV - Public Relations and Publicity

1. Public relations programs that sell environmentally destructive "production" practices as "conservation" practices (especially to Congress for funding).

2. Exporting of modern, temperate zone agricultural and forestry technology to fragile ecosystems in the tropics where they are completely untested and where there exists a potential for serious and widespread damage to the ecology of tropical ecosystems.

3. Characterization of nature as an essentially hostile force that must be combated and subdued rather than our essential life-support system that must be understood and respected (i. e. bumper sticker - "Agriculture your life support system".)

4. Environmental critics of agricultural or forestry technology are characterized as "preservationists" or "they want to turn back the clock to when the Seminoles occupied Florida".

Respectfully submitted,

Michael L. Bryant

MICHAEL L. BRYANT
Counsel for Petitioner
607 N. E. 1st Street
Gainesville, Florida 32601

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing has been furnished to Mr. Thomas S. Biggs, Jr., University Attorney, University of Florida, and to Mr. James S. Quincey, Attorney for Dr. Gray, 226 South Main Street, both of Gainesville, Florida, this 18th day of May, 1972.

Michael L. Bryant
Of Counsel



FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES

DOYLE CONNER, COMMISSIONER
ADM

* DIVISION OF FORESTRY

/ COLLINS BUILDING

/ TALLAHASSEE 32304

June 14, 1971

JUN 15 REC'D

Dr. George W. Cornwell
Associate Professor of Wildlife Ecology
School of Forestry
University of Florida
Gainesville, Florida 32601

Dear George:

Recently I saw the following in a Soil and Water Conservation bulletin:

"Ecology is severe on man," says Dr. Earl Butz of Purdue. Speaking at a recent dinner of the Foundation for American Agriculture, Dr. Butz observed: "The plain truth is that the ecology of nature is pretty severe on man, and man is constantly trying to modify it."

Let's be honest — God put the worm in the apple; man took it out.

God put the cockroach in the cracker barrel; man took it out.

God put the potato bug on the potato; man took it off.

God put the termite in the timber; man took it out.

God put the malaria-laden mosquito in the backyard; man took it out.

God put the mildew on the rose; man took it off.

God put the parasite in the pork; man took it out.

How far back to nature do our ecologists want to go? Or, if they are honest with themselves, do they really want to go at all? Let's be honest about it."

I thought you might be interested in this since I tend to classify you more as an ecologist willing to accept the here and now rather than to dream about what might have been.

I would appreciate your reaction to this thought if you have time to react to it.

Sincerely yours,

John M. Bathea
John M. Bathea
Director

July 22, 1971

Mr. John M. Bethes, Director
Florida Department of Agriculture
and Consumer Services
Division of Forestry
Collins Building
Tallahassee, Florida 32304

Dear John:

Thank you for your thought provoking letter of June 14. Frankly, I am moved by your efforts of this kind to communicate with me. Correspondence like yours is all too rare.

A complete statement of my reaction to the quote from Dr. Butz would take more time than I have to dictate or you to read. I think you are correct in placing me in the "here and now" category. I do not believe that we can return to Bartrum's Florida (even though I personally think I prefer that Florida to the one we are now building), nor do I believe that we can continue with our boom exploitation of the Florida environment without encountering a big bust! I attempt to approach all environmental problems as both an applied ecologist and a professionally trained natural resources scientist-manager. I think I have had some success maintaining this position because my devout conservation friends and my associates preoccupied with exploiting Florida's resources both seem to regard me at times as an antagonist, a fact which suggests to me that I am somewhere in the middle.

I tend to be put off and moderately offended by the over-simplifications contained in the Butz statement. A sensible man likely would not object to protecting the foundation of buildings from termites if it can be done with a chemical that is not excessively costly in its environmental impact. A sensible man should object to the elimination of the termite from the total environment and would want to closely analyze the environmental and economic costs of such an act and to analyze the ecological function in the environment of the termite as a decomposer. No humane person would object to control of malaria-carrying mosquitos, but a humane person would insist that the chemical we use for that function be relatively free of the destructive side effects of DDT which ultimately may hurt man more than malaria ever did! A broad spectrum chemical broadly applied destroys all or most of the mosquitos in the environment and is, in every likelihood, an ecologically upsetting approach that reasonable men should reject. Etc., etc., etc....

Most environmentally concerned ecologists are not preoccupied with going back to nature in the sense used by Dr. Butz. They are concerned with the continued

Mr. John Bethea, Director
 July 22, 1971
 Page Two

functioning of the ecosystem in an ecologically healthy enough manner to sustain life's total complexities, of which man is a small entity in the total biomass. I believe Butz's last statement totally ignores the ecologist's concern over the health of the ecosystem.

I personally believe we do need to go back (as a management goal) in time to a life style somewhat approximating ours in the United States just prior to World War II. A life style requiring significant economic, human population, and environmental adjustments. This doesn't mean that I would abandon the humane advances in health, nutrition, and many other areas of human endeavor. But I think that poorly defined and difficult to define concept, "the quality of life", has overall deteriorated in the past 30 years of my life. The deterioration is subtle and sometimes glossed over by shiny technological frills; but, I think many of our age group that knew life in July of 1941, look back from today with an element of remorse, nostalgia, and a regretful realization that the human condition may have been significantly better then in overall perspective.

As you know, these comments simply open the door to the kind of reaction you sought. In closing, I think that Butz's effort to debunk the ecological input is dangerous and harmful to those of us who are seeking a total ecosystem approach to managing the human environment. I see this kind of nonsense by Butz and others daily and regard it as a "Chamberlain" in our midst. A clever, but false intellect, that misleads and confuses the issues.

My very best wishes.

Sincerely,

George Cornwell
 Associate Professor
 Wildlife Ecology

Senator STEVENSON. We will next hear from a panel representing the National Association of State Universities and Land-Grant Colleges, represented by Dr. John T. Caldwell, chancellor of the North Carolina State University; Dr. Alvin I. Thomas, president of Prairie View A. & M. College in Texas; Dr. Orville Bentley, dean, College of Agriculture, University of Illinois; and Dr. George McIntyre, assistant dean, College of Agriculture, and director, Extension Service, Michigan State University.

Welcome to our hearings, gentlemen.

STATEMENT OF THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES REPRESENTED BY DR. JOHN T. CALDWELL, CHANCELLOR OF THE NORTH CAROLINA STATE UNIVERSITY; DR. ALVIN I. THOMAS, PRESIDENT OF PRAIRIE VIEW A. & M. COLLEGE IN TEXAS; DR. ORVILLE BENTLEY, DEAN, COLLEGE OF AGRICULTURE, UNIVERSITY OF ILLINOIS; AND DR. GEORGE MCINTYRE, ASSISTANT DEAN, COLLEGE OF AGRICULTURE, AND DIRECTOR, EXTENSION SERVICE, MICHIGAN STATE UNIVERSITY

Dr. CALDWELL. Thank you very much, Mr. Chairman.

I am Dr. John T. Caldwell, chancellor of the North Carolina State University, and I am former president of the University of Arkansas, a land-grant university, and a graduate of Michigan State, and I was president of the association a few years ago.

I am not an agriculturalist. I have spent the last 25 years as a university administrator.

I am accompanied at this hearing by people who are agriculturalists in a professional way, and who are also engaged in administration, those whom you have already named, Mr. Chairman.

Mr. Chairman, you have been very generous in your time this morning, and I have the feeling you will want us to make this short.

Senator STEVENSON. I have a feeling I have been a little too generous with the time of the other witnesses, and I apologize to you for that. Take as much time as you would like.

If you do feel that you could conserve time, we will place your entire statement in the record, and you may summarize it if you wish.

Dr. CALDWELL. Mr. Chairman, we have this longer statement, which runs to 20 pages or so, which we will have inserted in the record, and I wrote a shorter summary statement that I think I will read.

Senator STEVENSON. Fine. Without objection, the longer statement will be inserted at the end of your testimony.

Dr. CALDWELL. Mr. Chairman, I will now read my summary of the longer statement.

Mr. Chairman, my name is John Caldwell. I am Chancellor of North Carolina State University at Raleigh, North Carolina, a Land-Grant State University. I have been Chancellor of N.C. State for 18 years and prior to that was President of the University of Arkansas, also a Land-Grant State University. I received my bachelor's degree from Mississippi State University, also a land-grant institution.

Mr. Chairman, I am accompanied to this hearing on your invitation by the following persons: President Alvin I. Thomas, Prairie View A & M College; Dean

Orville Bentley, College of Agriculture, University of Illinois; Assistant Dean George McIntyre, College of Agriculture, Michigan State University; Ralph K. Huit, Executive Director, National Association of State Universities and Land-Grant Colleges.

In response to your specific questions we have prepared a rather extensive statement which we are filing with your secretary. I shall make a summary statement at this time, and then I shall ask President Alvin Thomas to make a statement to the Committee with particular reference to your Question 3 on the Land-Grant Colleges of 1890, the so-called "black land-grant colleges." I shall be pleased to respond to any questions during or following my statement and will refer to my colleagues when appropriate.

Mr. Chairman, you presented our Association with five questions. All of them bear directly or indirectly upon a basic question of the validity of the work of the land-grant colleges in serving American agriculture. The questions indicate a particular concern for the "family farmers" and farm workers and the responsiveness of the land-grant colleges to the people who live and work on farms or who have been displaced from farming.

I am confident that you and your colleagues are earnestly interested in getting at the facts which will help you in your deliberations on behalf of American farmers and farm workers. We, too, are interested in the facts. We want you to have them; we want you to have them without prejudice; and we want you to have them in the total perspective of American agriculture and the American society.

The land-grant colleges have been a vital part of American life in all its dimensions for over a century. The Agricultural Experiment Stations since 1887 and the Cooperative Extension Services since 1914 are integral to the spirit and accomplishments of these more than one hundred institutions. Because they are "human institutions" they require constant revitalization. They never have been perfect and they never will be. I would be hard put to it, however, to identify any American institutions which have built into themselves as many devices and mechanisms for keeping themselves vital and responsive. Even so, we welcome any informed criticism or questions from the Congress or any other source that cause us to sharpen our self-appraisal and keep us responsive to the needs of people. So, Mr. Chairman, we welcome your questions and we appreciate this opportunity to speak.

The American farm economy is the envy of the rest of the world, and for good reason. The American enterprise system of which agriculture is a fundamental part, plus the enlightened public policies which have encouraged it, plus the indispensable research and educational activities of the land-grant colleges, all combined, have brought this success. We cannot escape feeling some pride in this achievement of abundant food and fiber for our Nation, of a higher standard of living for our farmers, and of the enrichment of American life made possible by an efficient agriculture.

Now to your questions.

Question 1. To what extent has the land-grant college system assumed responsibility and developed programs to assist farm workers and farmers and others in rural America who have been displaced or affected by the development of new agricultural technology?

Answer. In our view the Nation has not done enough to assist displaced farm workers or others adversely affected by changing farm economy, either in rural areas or urban areas. Land-grant researchers and extension workers have always had as a goal improvement in the quality of community and family life in rural America. A basic approach has been the raising of income to the farm family, but along with it other efforts by home demonstration agents and in recent decades community development specialists. Where supplemental jobs and income were needed, our researchers and extension workers have promoted co-operatively new industry. We have, however, never been given the funds to pursue an individual counseling-guidance-retraining program for the rural dweller, either displaced or on the way to being displaced from farming. We cannot be all things to all people. We cannot, therefore, undertake the responsibilities of the public school system at either state or county levels; we cannot undertake the responsibilities of state and county departments of public health and the medical profession; we cannot take on the responsibilities of public welfare departments. Nor are we bankers and chambers of commerce. We are, however, concerned, aware, sometimes prodders, and thorough cooperators with every public

and private agency charged with responsibilities for retraining, for family welfare, for medical care, for industrial development, and the like. The record is replete. Recent legislation and enlarged funding are permitting our institutions to become more heavily engaged in readjustment activities.

Question 2. What are the land-grant colleges doing to assist the family farmer and farm worker adjust to changing conditions in rural America and maintain their economic viability? Are you satisfied that existing steps are adequate? If not, what additional steps to assure that land-grant colleges are responding to all people of rural America are you proposing?

Answer. This question seems to assume that the land-grant colleges neglect the family farmer. And then it asks whether we are satisfied with what we are doing.

The family farm has been and is the characteristic farm enterprise of America. The central purpose of our land-grant research and extension has been to improve the efficiency of human effort in the farming enterprise. These efforts have been and are primarily devoted to the family-owned and operated farm.

There seems to be some notion abroad that the family farmer is neglected. This is not true. Every improved strain of wheat is just as available to the family farm as it is to some absentee-owned corporate farm. Every cultivation practice that is improved helps every farm.

Mr. Chairman, there is a great deal of ignorance today, a great deal of innocence, and a considerable amount of romantic idealizing about farming. Because of this ignorance and innocence and romanticizing, there exists a fertile field for demagoguery. Family farms can be either self-subsistence farms or commercial farms, or a combination. In primitive agriculture all farms were self-subsistence farms and supported a primitive existence. Practically all family farms today are commercial farms. To be a happy human experience or even a tolerable human experience, the farm has to be profitable. Our research and extension efforts have been aimed at making farming happy and profitable for those who farm. Only a sound economic unit can pay a decent wage to a farm worker and provide a decent return to the owner and his family for their investment and labor. Our objective has been to make the farm unit a viable, economic human enterprise.

Family farms come in all sizes. Corn-hog farms of great size can be managed efficiently by a farm family with only occasional supplemental labor. A rice farm of 640 acres in Arkansas can be operated by a family. A small tomato patch in a mountain county in North Carolina combined with supplemental wages from other work becomes a family farm. A beef cattle farm can be managed in very large acreage by a family. But in all cases the products of research and extension advice are needed: for disease control, pest control, resistant varieties, improved yield varieties, tillage and fertilization practices, economic advice on land utilization, and so on.

Mr. Chairman, we glory in the service we have rendered the American farm family in freeing it from drudgery and poverty. Only the innocent or the ignorant or the romanticist would argue against efficiency in the use of human labor on the farm, represented by modern technology. The logic of arguing against machinery and fertilizer would take mankind back to primitive practices and to doomsday.

Are we satisfied with our effort? No. We never have been satisfied with it. We keep pressing. The Congress of the United States, the State Legislatures, the County Boards of Commissioners are more and more help in our efforts to improve American agriculture. If the planned programs of Experiment Stations and Extension Services all could be supported, we would indeed be responding more adequately to the needs of rural America.

Question 3. What do you see as the appropriate future rôle of the Colleges of 1890, the so-called "Black Land-Grant Colleges"?

Answer. Dr. Alvin I. Thomas will speak to that question when I am done.

Question 4. Who are the current beneficiaries of the research and other efforts of the land-grant colleges, and does your organization consider the current allocation of institutional resources and distribution of benefits equitable?

Answer. Unequivocally, every man, woman and child in America is the beneficiary of the research and educational efforts of the land-grant colleges. America has lots of problems which are documented daily. But a shortage of food and fiber is not one of them. This is not to say that every American has equal access in his purchasing power to this abundant supply. But that is a problem

of distribution of income and is quite beyond the Experiment Stations, Extension Services and colleges of agriculture to solve.

On the second part of that question I would have to respond in this fashion. We do not believe that any of our present efforts should be diminished in providing an efficient and prosperous agricultural enterprise for the country. We do believe additional resources can be put into rural development efforts and family support efforts such as the nutritional aide programs of recent years. What needs to be done in rural America, however, goes far beyond the jurisdiction and responsibility of the colleges of agriculture.

Question 5. What mechanisms are needed, if any, to make the land-grant college system accountable to the public interest? Are changes needed in the composition of advisory committees at either the national level or on individual campuses? Is it necessary to have more public disclosure regarding research projects, administrative operations, foundation activities, fiscal policies, patent and licensing practices, industry contributions, and potential faculty conflicts, of interest?

Answer. Mr. Chairman, the phrasing of this question I regard as unfortunate in its implications. The land-grant college system is thoroughly and completely accountable to the American people, to this Congress, to the State Legislatures, to County Boards of Commissioners, to women's organizations, to commodity groups, to farmers. In every conceivable way we try to report to our many constituencies, to hear them, and to serve them. I know of no calculated effort anywhere to conceal anything we do or to avoid responsiveness to the people who support us and to the people we serve. Furthermore, the integrity of our scientists and our teachers and our extension workers is not for sale. If in the vast organization and far reaches of what we call the land-grant college enterprise for agriculture there is some abuse, some malfunction, there are ample means for correcting them when they become known to us.

We are not a self-serving institutional system. We are in no position to be other than accountable, open, candid, and amenable to correction. I am not aware of any specific measures that devolve upon us to make public our relationships and involvement and activities than we already do. Whenever any citizen suspects a fault, I know no barrier in this free society to his calling it to our attention and getting a decent answer.

Finally, Mr. Chairman, may I add another comment and then my conclusion. I have first-hand knowledge of efforts to assist undeveloped and underdeveloped agricultural economies of other nations to improve their efficiency and their output in the interest of their people. In these circumstances much of what we in the United States take for granted stands out starkly as a granted need. Research is a need: on soils, on pests, on seeds.

An array of services is needed, what we call the agri-business complex. Who is going to furnish the viable and reliable seed? Who the fertilizers? Who the insecticides? And when the crop is ready, who is going to buy it and store it and transport it and get it to market at a time and in a condition that makes it saleable? Who is going to furnish the credit for either the little operator or the large operator that will help him improve his efficiency, improve his income and raise the level of life for his family.

Mr. Chairman, a peculiar and amazing thing in recent years, in recent months, and even in recent weeks has been surfacing in the public media, in politicians' speeches, and in youthful rhetoric. What I am referring to is not only peculiar and amazing: it is also pitiful. An overwhelmingly urban population can easily take for granted an efficient agriculture. And then those few who become concerned about it may bring with their concern an ignorance, an innocence, and a romanticism that misses the point entirely. For thousands of years men have used their intelligence to try to free humanity from drudgery and burdens that sustained only poverty for all but a few. Man has sought to release himself, his body and his time and his mind for a higher quality of life. The goal of the land-grant colleges has been to further man's accomplishments on behalf of the human spirit. Nowhere has this success been more apparent and brought more blessings than in the agricultural enterprise and the homes of rural America. We joint wholeheartedly with any public or private endeavors to mitigate and overcome the hardships of those who for one reason or another find themselves left behind or not accommodated by the changing prosperity of rural America. At the same time we reassert our clear commitment to an efficient and prosperous American farmer.

Dr. CALDWELL. Mr. Chairman, we would be glad to respond to any of your questions.

Senator STEVENSON. Thank you, Dr. Caldwell.

We will hear from Dr. Thomas before we go to questions.

Dr. THOMAS. Thank you very much, Mr. Chairman.

I have a statement I would like to have inserted in the record also, Mr. Chairman, and I will read a summary.

Senator STEVENSON. Thank you, Dr. Thomas.

Your full statement will be inserted in the record at the end of your testimony.

Dr. THOMAS. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I am Alvin I. Thomas, president of Prairie View A. & M. College at Prairie View, Tex., one of the so-called land-grant colleges.

I am a native of Louisiana. I earned my bachelor's and master's degrees at Kansas State College, attended Pennsylvania State College, and earned the Ph. D. degree from Ohio State University.

I have been employed at Prairie View A. & M. College since 1949, and president of the college since 1966. I am currently a member of the executive committee of the National Association of State Universities and Land-Grant Colleges and also a member of the advisory committee for the office for the Advancement of Public Negro Colleges.

I wish to express my thanks to Senator Adlai Stevenson and his committee for inviting me to testify before this committee as a member of the executive committee of the National Association of State Universities and Land-Grant Colleges.

I have been asked to concentrate my comments on the question: "What do you see as the appropriate future role of the college of 1890, the so-called black land-grant colleges?"

The report, "Hard Tomatoes, Hard Times," points out what we all already know; namely the 1890 colleges were created in 1890 under the "separate but equal" provisions of the Second Morrill Act. The report also points out that the black colleges have been less than full partners in the land-grant experience. It goes on to further point out that, as late as 1971, of the U.S. Department of Agriculture funds allocated to these States with both white and black land-grant colleges, 99.5 percent of the funds went to the white colleges and only 0.5 percent went to the black colleges.

Each of these allegations is true. These conditions are not only true of the land-grant system, but they have been true in general for the Nation as a whole. In general, black people have been less than full partners in any of the national experiences. Black people have, until recently, been subject to the "separate but equal" treatment in almost all national experiences including a large segment of the north. When it comes to money, black people can usually be credited with receiving the crumbs from any cake provided on the national scene.

It is important that these points be brought out in reference to the land-grant system as well as the national scene as this situation must be corrected.

In recent years, the National Association of State Universities and Land-Grant Colleges has taken positive and affirmative steps to insure the full partnership of the 1890 colleges in the land-grant college system.

At one time the 1890 colleges were not permitted to hold membership in the NASULGC. Today, each of the 1890 colleges is a full and participating member. Representatives of the 1890 colleges are now on all commissions and committees of the association.

In recent years, at least one representative of the 1890 colleges has served on the executive committee of the association. Currently, the president of South Carolina State College and the president of Prairie View A. & M. College are serving on the executive committee. By the end of this year, black representation will be included on the powerful ESCOP and ECOP committees.

In fiscal 1971, USDA funding to the black colleges was slightly over \$200,000. In fiscal 1972, the 1890 colleges received \$8.6 million for agricultural research and \$4.2 million for extension services. While this was a positive step forward, it did not adequately meet the needs to be served by the 1890 colleges. In many instances, after allocating the funds into 17 parts, there were only enough funds remaining to serve a small part of the people who are in need in the respective States.

The 1890 colleges have also shared in the Morrill-Nelson Funds appropriated annually by Congress. Recent efforts to eliminate or reduce these funds have posed a serious threat to the 1890 colleges. In all cases, these funds are desperately needed. It is absolutely imperative that these funds not be reduced insofar as the 1890 colleges are concerned. Any reduction would drastically injure the 1890 colleges.

The role of the 1890 college has always been dominant in its service to people. Born of a need created by a people emancipated from slavery, the black land-grant colleges have related historically with the problems of human and community development. The achievements of these institutions through their products and services have been nothing less than phenomenal when measured against the meager resources they were given. Their graduates have gone on to achieve the highest honor possible through providing services to people and the Nation. The range of involvement of the products of the 1890 college extends from personal advisors to the Nation's youth to personal advisors to presidents of the world's top government, the United States of America.

Today, one-third of the Nation's blacks, nearly eight million, are still poor, according to a recent U.S. Government publication, "The Poor in 1970: A Chartbook." Many of these individuals live in the nonmetropolitan areas of America and account for 47.6 percent of the 25 million poor in our Nation. Even more importantly, a vast majority of these individuals have or had their roots planted in the southern region of America, which accounts for 11.5 million poor, or 45.0 percent of all the poor in the Nation. It is in this region, designated as the South by the U.S. Census Bureau, that the seventeen 1890 land-grant institutions are situated. These institutions have been providing vital services to meet the needs of their individual States, as well as the region, the Nation, and the world, since the latter quarter of the nineteenth century.

The fact that some 60 percent of the Nation's blacks still live in the States in which the 1890 institutions are located, with close to 50 percent of these still residing in rural areas, serves further to dramatize

the need for additional funds to properly support them. The challenge for these institutions to keep abreast of societal needs is also heightened by the recent phenomena of an increased poverty coming on the heels of a decade of prosperity. Fifty-three percent of the 1.1 million increase in the number of poor between 1969 and 1970, occurred outside of our metropolitan areas.

The greatest resource to be found in the rural areas of America, now as at the time of the initial establishment of the land-grant college concept, is the human resource. It is the development of this most important resource that has and continues to command the attention of the 1890 institutions.

Preliminary statistics for the June, 1972 graduations at the 1890 institutions indicate that slightly more than 12,000 students, mostly products of poor economic backgrounds, were graduated. This is a larger number of black graduates than all of the Nation's nonblack colleges produced together. The obvious role of the 1890 college then is the production of black educated personnel.

While it is an historical fact that the 1890 colleges have not received an equitable allocation of financial resources, the prospects of positive change loom ahead. It is encouraging to note that the black institutions are receiving and profiting from an increased level of financial support from Federal agencies, especially the U.S. Department of Agriculture. Through USDA, \$12.8 million for research and extension became available to the 1890 colleges in fiscal year 1972. The major thrust of practically all of the funds provided 1890 colleges went into people's problems, or projects aimed at the people, their families, their incomes, their welfare, their health, or their communities.

An important start has now been made. Today for the first time the 1890 institutions are receiving rather significant grants from the U.S. Department of Agriculture for research projects which promise to be of significance for their historic constituents and for the entire Nation.

Illustrative grants help to document the generalizations:

Fort Valley.—An initial grant of over \$200,000 for research on the poverty cycle in rural families; the location and the historic service of Fort Valley qualifies it to take a unique approach to this opportunity.

North Carolina A. & T.—An initial grant of \$135,000 to conduct research on occupational hazards in agriculture and rural industry. Two additional grants totaling \$275,000 to study and evaluate clothing needs of low-income families and ways of improving the quality and lasting value of freeze-dried foods.

South Carolina State.—Over \$475,000 for a study of the nutrition and health status of rural county residents as a guide for ameliorative measures.

Virginia State College.—A half million dollars grant to research and develop practical applications to problems of low-income agricultural and business groups that are faced in developing countries. The basic focus will be directed to the fields of economics and agricultural economics.

Prairie View A. & M.—Over \$750,000 from the Cooperative State Research Service to gather and evaluate basic data which will guide future programs to help the people left behind.

"Food Choices and Nutritional Health of Older People."

"Factors Affecting Patterns of Living of Disadvantaged Families"

"Changes in the Nature, Composition, and Socio-Economic Conditions of Black Families in Texas."

I would like to add this exhibit from the *Prairie View City News* to my testimony. The caption reads: One Million Plus for Prairie View A. & M. to help "People Left Behind."

The records will show further that major efforts are being developed to express tangible concern for the perennial problems of rural America such as health, nutrition, economic, and manpower development, child development, recreation, and problems of the aged.

As the 1,890 colleges look to the future, the heroic accomplishments of the 1,890 colleges cannot continue without significantly increased moral and financial commitments. The 1,890 colleges have brought black and poor people from the point of gross deprivations to the threshold of a democracy. They stand on the brink of achievements but it is not yet within their grasp. They cannot promise to continue to build bricks without straw; to carry water without buckets; to hew wood without axes; nor should they be expected to exist as they have in the past, without encouragement, increased funds, and a national commitment.

The 1,890 colleges are essential to achieving solutions of America's people problems. Possibly, the problems cannot, and will not, be solved without the proper development of a college in which these colleges are a distinct part of the picture and are yet able to maintain their uniqueness and individuality. The problems of the poor, the jobless, and the disadvantaged suffer for solutions in the shadow of the 1,890 colleges.

The question has been raised as to the appropriate future roles of the 1,890 colleges, the so-called "black land-grant colleges." There are six generalizations which should be articulated as prerequisites to outlining new roles. They are:

(1) The 1,890 colleges are not new, untried, and untested institutions.

(2) These institutions have served the Nation, their respective States, and local communities productively and consistently under less than favorable conditions as responsible institutional centers of goodwill, community leadership, and economic opportunity.

(3) The 1890 colleges have shown, by and large, the disposition and the ability to grow and change with the times.

(4) Most of these schools are located strategically and are serving a preponderance of black and brown people in a unique way.

(5) From their inception, the 1890 colleges have been what their own governing boards have expected, required, and permitted them to be.

(6) During the contemporary period with increased concern for (a) expanding educational opportunities for black and brown people; (b) improving the quality of life for all in America; and (c) identifying and channeling needed human and financial resources to accomplish the two preceding goals, it is not unreasonable to conclude that the 1890 colleges are well suited to assume new roles commensurate with developing thrusts in the Nation.

There is no feeling that the 1890 colleges have exhausted their traditional roles in the higher education and the social scheme. Rather, the evidence points to the need for intensification of their historic

objectives in response to America's continued manpower needs. Thus, six possibilities are suggested as new roles for these colleges. The new roles include:

(1) The 1890 colleges must participate meaningfully and substantially in the whole effort by the several States and the Federal Government to alleviate and solve rural and urban problems.

(2) The 1890 colleges must become full-fledged partners in the current thrust to probe and develop the potential for improving the quality of life in rural and urban America.

(3) The 1890 colleges must be a reservoir of well-prepared personnel for service in the respective branches of State and Federal Government.

(4) The 1890 colleges must be more active participants in supported research and services.

(5) The 1890 colleges must become the States principal educational agencies in those areas where there is no other established multipurpose public institution of higher education.

(6) A central role for the 1890 colleges must be one of preparing personnel who will be able to attack and solve "people problems," and to provide an education suitable to the needs of the "common people."

To insure the attainment of the new rules of the 1890 colleges, moral and financial commitments are imperative.

A financial commitment must be made to fund the 1890 colleges as full partners in the land-grant college system. A moral commitment must be made to eliminate all forms of discrimination in programs and resource allocation, especially funds, from the land-grant system; to recognize as valid, the pluralism of the 1890 and 1862 colleges and to develop this pluralism into a meaningful system for delivering to the people of our land, a life style which enhances them individually and affords them life, liberty, and the pursuit of happiness.

Senator STEVENSON. Thank you very much, Dr. Thomas.

Do any of the other witnesses wish to add anything to what has already been said?

Dr. BENTLEY. Mr. Chairman, I would just like to respond to two questions of fact that you have raised in some earlier part of the discussion, dealing with whether or not the University of Illinois and the College of Agriculture are working with the Metropolitan Sanitary District of Chicago and the monumental problems it has with sludge disposal.

I can assure you that we are. We have been for about 3 years doing some test work, finding out some of the problems in connection with using or disposal of sludge on land, and there are problems, there are technical ones. I could go into considerable depth, but I do not think I have the time.

As a result of this preliminary work, there is development of a project in which there will be an extensive land reclamation effort that will be connected with the use of sludge from the Metropolitan Sanitary District.

The exact status of that project, I cannot recount for you, but it is well underway, and one in which the university, including the College of Agriculture, the department of sanitation, and others have played a part.

Now, if I might just take time to make one more comment. We cannot overlook the opportunity to say that we have a great product in soybean oil meal to supplement corn in the production of swine, and we have cattle and dairy products in Illinois, and while there may be a problem in getting fishmeal, we have a very fine product in soybean meal at this date.

Senator STEVENSON. Dr. McIntyre, do you have anything you wish to say?

Dr. McINTYRE. Mr. Chairman, we have made a number of statements in the prepared statement which Dr. Caldwell cited for the record.

There are a number of things I would like to comment on, but due to the time problem, I would rather respond to questions.

Senator STEVENSON. I am very familiar with that project in Fulton County, Dr. Bentley, and that is one of the reasons I brought it up. It has great potential I think for human welfare, and for solving some problems all across the country.

I am glad to hear of the University of Illinois' involvement. I am not surprised, but in that case, and also the other case in southern Illinois, where sludge is being used for stripmining land reclamation, there are some very real economic, not necessarily technical, problems. The transportation costs are high, and it is how you put together a complete model, and how you bring together all the representatives of the community that is important. Can't the land-grant colleges help us on that scale, too?

Gentlemen, no one would doubt for a moment the marvelous efficiency of American agriculture. As one of our witnesses said, it is the envy of the world. And neither could one doubt that the land-grant colleges have made an extremely significant contribution to the efficiency of American agriculture.

But we have always prided ourselves in the fact that our country is one in which a man can toil his own land, take satisfaction from the life on the land, and earn a decent living from the soil. Thomas Jefferson was the most eloquent spokesman for that kind of America. But just since the end of World War II, 3.7 million families have left the land.

Dr. Butz estimates that 1 million more families will leave the land between now and 1980.

The figures are especially disturbing when we talk about the plight of the black farmer. In two decades between 1950 and 1970, black farm population has gone from 3,100,000 to 938,000.

That is an annual loss of over 10 percent of black farmers. And we also pride ourselves as having a free enterprise system in which theoretically, hard work, enterprise, and efficiency is rewarded with a decent life, a satisfactory income.

Now maybe what is happening in rural America has simply been a reflection of a free marketplace, of those farmers leaving, one family after another; as victims of competition in a free marketplace. But the evidence, the overwhelming evidence before this committee so far, suggests that most of those family farmers who have left the land are highly efficient producers.

If that is so, the central question in our inquiry is raised.

That is simply whether there is a free enterprise system in rural

America, or whether that family farmer, no matter how efficient he is, no longer has much of a chance. That brings us back to some of the questions which we have been asking about concerning the activities of land-grant colleges.

We have been asking a lot of questions in these hearings about tax policy, irrigation, and land reclamation policies, and crop subsidy policies.

When I say taxes, not just Federal income taxes, or property taxes, I am referring to all of them.

On page 13 of your statement, Dr. Caldwell, you state that benefits of research knowledge has been made available to all people, and such knowledge is not restricted to any one audience by level of income or size of enterprise.

Would you say that the new technology produced by research is available to everybody in view of the fact that a large capital outlay is needed to benefit from that technology.

Dr. CALDWELL. Yes, sir; the information is available to everybody.

There is a technological development in the whole tobacco economy that the farmers themselves have looked forward to, have pushed us toward, that makes it much more efficient and more economical to handle a tobacco plot. The alternative to these developments, it seems to us, would still leave a lot of very poor people putting together piece work wages at harvest time, and not having any other supplemental income during the rest of the year.

There is nothing evil about the development of mechanical harvesters in the tobacco fields, or even bulk curing.

Now, there is no question but that it changes the ingredients that go into the farm management decisions, that bulk curing is available to a group of farmers on a cooperative basis. If they can get together and make that investment, it will solve a big problem for the family tobacco farmer.

The family farmer on tobacco is looking for ways to cut his costs.

Senator STEVENSON. Can you tell us a little bit about the extension service activities of land-grant colleges to the cooperative producers?

How many extension services are made available to the small cooperative farmers?

Many farmers need help just to put a cooperative together.

Dr. CALDWELL. There are two ways in which I think our people do this.

Our Department of Economics at North Carolina State University has about 80 full-time positions, and about 29 or 30 of them are in what we call agricultural economics.

Some of these are economic experts on the business of farm cooperatives, and the information in the bulletins they produce is basic information.

Now, our extension people out in the county are available at any time to help these fellows put together a new marketing or producers cooperative, and to get a specialist out to work with him during the process.

Senator STEVENSON. A 1970 study purported to show that 80 percent of black farmers in Alabama had never been visited by an extension agent.

Are there any nationwide figures available that would give us a hard estimate of how those services are really reaching the poor farmers?

Dr. CALDWELL. I do not know what the reports might give you, Senator.

I can say that there is a mistaken notion, though, that a county agricultural agent can visit every farmer along the road and make himself available to every one of them. That is an impossibility.

It is an utterly impossible situation. There may be 25,000 people in a county. These experts make themselves available in groups, they announce field days, they put up posters, they let people know they are going to have field days and demonstrate and answer questions all day long, and every device is used. The accusation that the county extension worker works with only the big farms is untrue; the plain truth of the matter is that with the kind of funding available, they can only make themselves available to people who knock on their doors and want help. That alone can take all of their time, and there is not any time left over to knock on doors down the road.

As a matter of fact, I do not know how much money it would take in Federal and State funds to do the kind of things that your question implies.

Maybe one of these gentlemen would like to respond to this.

Dr. McINTYRE. Mr. Chairman, I would indicate it is not necessary to call on every farmer, that that is a mistaken notion of some people, and I would only call to your attention the fact that in the State of Michigan, I would not know where to go to find the farmer that was not growing hybrid corn, and I would doubt in the State of Illinois you could not find the farmer that would not grow hybrid corn, but there are probably a great many in each State that have never been visited by a county extension agent. I think this can be applied to many different kinds of programs, but I would also add that every extension agent makes very extensive use of all kinds of media: newspapers, magazines, radio, and television, and every other form of communication, in order to reach those people. Those people are on mailing lists, they do watch TV, read magazines, listen to radio, and we do a great deal of training of the people in agribusiness. Those people in turn are out there with a multiplying effect, and the only contact a farmer may have is when he takes a crop into the co-op, and he takes his fertilizer back. We do spend time training people in those co-ops and in some of the new technology that can be helpful.

There are many, many ways of reaching people besides going out on a one-to-one basis, and there have never been enough resources to do that. It is questionable whether there will ever be enough resources to do that.

Dr. CALDWELL. I do not think there is any doubt that this small farmer, and especially the black farmer, has been neglected.

Senator STEVENSON. I do not think it is only the black farmer.

According to the report, The Spirit of the People, the extension service in 1964 devoted 86 percent of the resources to the wealthiest third of America's farmers, and on a per capita basis, this means the wealthy farmer received 14 times as much attention from the extension service as the low-income farmer.

Now, I understand you are justifying that allocation of extension services on the basis that they are available to everybody, but only the wealthy take advantage of it.

Dr. CALDWELL. Senator, I would have to respond to that statement by pointing out that the very fact that the extension people put out this study indicates what has been going on in the extension service a long time.

They have to take stock of themselves, in how they are spending their time, and they were taking stock then, and they were having to push their own people, and say, "Look, we know how you get tied up and get preoccupied with all of these people who come into your office every day, and who take up your time at your local meetings," but we are just saying to ourselves, "Get out there and work a little harder to reach the other people." There is no lack of concern there.

Senator STEVENSON. That report recommended that there be a doubling of resources devoted to low-income farmers over 10 years. That was 8 years ago. What has happened during those 8 years?

Dr. McINTYRE. Mr. Chairman, let me make one other observation on the second question.

In the report you mentioned, about four times as much effort is being placed on the upper-class farmers as on the low-income group, and that was determined on the basis of the time that was spent with those people.

The reason the time was spent with those people, is because those are the people that come to the meeting, that call in on the telephone, who write in and make the contacts, and anyone in this room who had to allocate his time or determine where his time was spent, would come out with a similar result.

Since that report has been published, there have been requests made to the Congress for additional help to handle the very thing you mentioned, the work of low-income farmers, which takes a little different technique to be effective, from the technique that is now used.

This is recognized, but the Congress has yet failed to offer the resources to do this sort of thing.

Senator STEVENSON. Does it take more resources from the Congress?

Dr. McINTYRE. It will take additional resources.

Our agents are busy from morning until night, including evenings, and this is not 5 days a week or 40 hours a week, it is also on Saturdays and Sundays. They receive calls at home, and some of these calls come very late in the evening at their homes. It will take a different technique and more resources from those we are now using.

Senator STEVENSON. Getting back to the tobacco industry, I have a strong impression that your feeling is that mechanization is good, and it is inevitable.

The suggestion has been made that if that is the case, land-grant colleges might devote more of their resources to the development of machinery for small farmers, instead of the \$52,000 investment required for that tobacco machinery that can only be afforded by large farmers.

Dr. CALDWELL. Senator, I do not want to be testifying on the facts without knowing more myself, but as to the \$52,000, in general, the work of the machinery is to solve the problems of farm harvesting, regardless of the size of the farm.

For example, the bell pepper people, or the cucumber people, and they are small farmers, all of them, want to get some help on mechanizing in the harvesting of cucumbers. If we neglect them too long, they go to the legislature independently and get an appropriation for us to get in there and do it. I am not aware that we have any disposition or bias in favor of machinery that favors the large farmer.

I am not aware of that at all.

As a matter of fact, most of the mechanization that we have accomplished in the agricultural industry has helped to make the family farm unit a more viable economic unit in itself.

It has not had the effect of destroying the family farm.

Senator STEVENSON. I am not saying it is deliberate, but we know the effect, of mechanization, the poor farmers lose out.

They cannot buy expensive machinery. It is estimated by the USDA that development of technology in the tobacco industry will result in elimination of 150,000 farm jobs over just a 6-year period.

That is a direct result of mechanization in just one industry.

Dr. CALDWELL. But that is not the elimination of that many farm jobs for 12 months out of the year.

That figure has to be put in a different economic perspective from how it sounds.

Senator STEVENSON. Well, I raise it as an example.

Dr. CALDWELL. The concentration over a small period—

Senator STEVENSON. The displacement of rural Americans is partly a result of mechanization research conducted by land-grant colleges.

Now, maybe, as you indicate, that is desirable, perhaps it is inevitable.

If it is, I should think there must be some effort made to help those 150,000 people who lose their seasonal jobs.

A USDA official recently stated that he does not know of one experiment station which has a program of concerted effort conducive to facilitating the adjustment of people out of agricultural employment.

Dr. CALDWELL. If tobacco-farm working is the only job that person had, he is a mighty poor individual. He is living in poverty circumstances, and you did not relieve him of very much poverty with that seasonal job.

The only way to solve a lot of problems of jobs for people on American farms is to raise the American economy, and to retrain these people.

That is the reason we welcome in the public schools of North Carolina increased emphasis on vocational training, other than vocational agriculture, and in our institutes it is not only located in cities but also in rural areas all over that State.

This is the way you get to help these people. I have a place in the mountains of North Carolina. I see fine, new houses out there, and the corn crops coming up, and the other crops coming in, they are going to sell to some of the producers and processors around there, but also supplemental industry is out there, maybe a textile mill, maybe a branch of Olin-Matheson.

This is the only thing that will solve that, not finding jobs on farms that do not exist.

Senator STEVENSON. The average unit for tobacco production was 8.9 acres. The new technology requires 40 acres to be economically self-sufficient.

I understand that many small farmers cannot use this new machinery, and that they are going to get thrown out of business. As far as I can tell, nobody is addressing any attention to the problems of the 150,000 that are losing jobs.

You go beyond that and say this is a problem in our economy at large, and you could not be more right, the problem of technological displacement exists in industry as well as in agriculture, and, in both cases, we have not faced up to it in this country.

You are recognizing, I think, that we ought to face up to it, and I am suggesting that the land-grant colleges ought to face up to it.

Dr. CALDWELL. Senator, we do face up to it.

Let me get into the logic of what is being said. There is very little logic to the analysis being drawn. Earlier in the day, there was some suggestion by someone, perhaps by your questions, that it might be more economical to have hand labor and to exclude mechanized labor.

Every farmer makes his own decision in this business. If he wants to mechanize, he can mechanize.

If he does not want to mechanize, he does not have to mechanize.

He can either hire the labor that is available, if it is available, work a little harder himself, and keep his children in school if he wants to, or he can make a third decision, and he can get out of farming.

Nobody forces these decisions on him, but even this small tobacco farmer with the 8 acres or 9 acres can join with other tobacco farmers in some of the mechanization equipment he will use.

We help farmers with these decisions. We have all kinds of analyses that will indicate to a small farmer when he ought to mechanize, and when he should not.

If they use this information, fine, we make it available to them, we talk to them about it, we discuss it in field days.

It is a fact that we are promoting farmers to do away with labor. We help them make their own decision as to whether they are going to buy a tractor or buy a harvester, or keep on doing it by hand, and his own family circumstances determine it. If his children say, "By gosh, Dad, I am not going to harvest tobacco anymore," and they go to town, there is nothing he can do about it, and the land-grant colleges can not make him do it.

Senator STEVENSON. Well, I have not seen any freshly painted farm houses, even in the heart of the corn belt.

As Secretary Butz mentioned, our family has a farm, and it is located on good soil. But the farmers tell me in central Illinois, and I have been traveling around to other places that do not have such good soil, that to survive, they have to mechanize, and they also have to buy more land, and they cannot afford either.

Dr. CALDWELL. Senator, I do not doubt that some of these things are true.

Senator STEVENSON. You said they have a choice. Most of them do not have a choice.

Dr. CALDWELL. They have a choice. They can go out of farming. This has always been true. Newspapers can go out of business, too. The cor-

ner grocery can go out of business. There is no way in the world for us to control the normal operation of the free economic system, where capital and labor and management goes where it wants to, and makes its own decisions.

What do we do to help these folks out there?

We do our best to provide market information for their products, to indicate management information for their acreage, to help them make the decision whether to rent another 40 acres of land or not, whether they can afford to buy it or not, and this is the way a lot of these pieces are put together. We help them make those decisions, but the decisions are theirs to make.

When I say painted farmhouses, I mean that. Along with them, you can go along side the well painted country farmhouse, you can see an abandoned farmhouse that looks dilapidated and the people do not live there anymore.

You see another place where the people have not quite made it, and they are being displaced.

These people are our concern. This is a part of the hard realities of a society which is advancing technologically, and which has not perhaps done enough to provide other jobs and other training for these people who are going to be displaced. But what we resist is the argument against mechanization, and so on, and that we should go back to primitive farming. That is the logic of it.

Senator STEVENSON. What I am trying to suggest is that this system is not free enterprise, that is why that farmer loses out, and it is not only because of mechanization, it is because he does not have access to credit with which he can invest \$52,000 for a machine to harvest his tobacco.

That family farmer is now competing with a large conglomerate that is in farming for reasons other than farming, perhaps to speculate in land values. The family farmer today is competing with a large corporation, yet he has to farm for a living. The corporation moves in, and the price of the land goes up to the point where the family farmer cannot buy it any longer, and that process brings many problems to us.

We have talked a little about mechanization. Some of the small farmers complain that they have great difficulty marketing their fruits, vegetables, and commodities in competition with corporations and conglomerates which now often satisfy their own requirements with their own farms.

Of the five and a half cents that goes for marketing research out of every land-grant college dollar, how much of that is allocated to the marketing problems of the small farmer?

Dr. CALDWELL. I should think that practically all of it.

I would judge that practically all of it would go to that, the marketing problem of the fellow who raises beans, or has a feed or cattle operation, or whatever it is going to be, all of that gets into the marketing process.

These are small farmers. They make their own decisions. It is illusionary to think we are just serving the big so-called commercial conglomerate owned farmer.

This is part of the innocence that we run into.

Senator STEVENSON. It would be helpful if we could get a breakdown from you on the allocation of research dollars for marketing.

Dr. CALDWELL. Fine. We would be glad to submit it. We will have to call on USDA to get it for the Nation.

Senator STEVENSON. I'm not sure you can get it from USDA.

Dr. CALDWELL. I do not have it in North Carolina, and our land-grant office does not run this.

Senator STEVENSON. Well, if it is possible, it would be helpful to us.

Dr. BENTLEY. Mr. Chairman, there is a breakdown of a certain set of category of marketing research which is available.

We would be glad to supply the domestic information that we have to this committee. I will see to it that this information that we do have, by research priority areas, and by grouping, is given to the committee.

Senator STEVENSON. This will be out of the University of Illinois?

Dr. BENTLEY. Out of the University of Illinois, or the other information assembled through the Cooperative State Research Service, and for the agricultural experiment stations.

It will be not only the money spent from Federal sources, but the money from State sources as well.

I cannot recite it here today, because it gets into a numbers game, but we do have these figures.

Senator STEVENSON. Fine.

We are running out of time, so let me ask one final question.

Dr. York testified that the University of Florida does not permit its personnel to serve on the boards of agribusiness concerns, or to act as a paid consultant for them.

Can you tell us how many of the land-grant colleges have such restrictions on the activities of their staff and whether they take a position on this?

Dr. CALDWELL. I would have to get this from the individual institutions, but we will get this information for you.

It is true in North Carolina that it is not permitted, I assume it is true generally, but we would have to get this information.

Senator STEVENSON. Does the administration have a position on this question of conflict of interest?

Dr. CALDWELL. No, sir; the association does not get down to such policies as these.

These are institutional policies.

Senator STEVENSON. You are well acquainted with the charge?

Dr. CALDWELL. Yes. I think it is not well founded.

Senator STEVENSON. I am only interested in the facts.

Dr. CALDWELL. Yes, sir; but these were statements of opinion too.

Dr. BENTLEY. The University of Illinois has a set policy on consultants that applies to all faculty members of the University of Illinois.

Dr. CALDWELL. We can get this information, and we will submit it for the record.

(The information was subsequently supplied and is retained in the subcommittee's official permanent files.)

Senator STEVENSON. Unless there is anything else that any of you gentlemen would like to add, I want to thank you very much for your assistance here this morning.

Dr. CALDWELL. Thank you for the opportunity, Mr. Chairman.

(The prepared statements of Dr. Caldwell, Dr. Thomas, and other information follow:)

Statement Before
Subcommittee on Migratory Labor

of the

Senate Committee on Labor and
Public Welfare

by

Chancellor John T. Caldwell, North Carolina State University

accompanied by

President Alvin I. Thomas, Prairie View A & M College
Dean Orville Bentley, College of Agriculture, University of Illinois
Assistant Dean George McIntyre, College of Agriculture, Michigan State University
Ralph K. Huitt, Executive Director

for the

National Association of State Universities and Land-Grant Colleges

June 20, 1972

Mr. Chairman:

We are pleased to offer the following response for inclusion in the records of the hearings of this subcommittee and to have an opportunity to represent the National Association of State Universities and Land-Grant Colleges.

In consultation with my research and extension associates in a number of land-grant colleges, this material is addressed to the five questions outlined by Senator Stevenson in his June 2 letter to Mr. Ralph K. Hitt, Executive Director, National Association of State Universities and Land-Grant Colleges. Because of the nature of the material we wish to present, we have taken the liberty of altering the order of questions one and two as posed in Senator Stevenson's letter.

The answers to each of the questions must to some degree be found in the historical setting of the land-grant colleges and the assigned missions of research, teaching, and extension.

QUESTION TWO: WHAT ARE THE LAND-GRANT COLLEGES DOING TO ASSIST THE FAMILY FARMER AND FARMWORKER ADJUST TO CHANGING CONDITIONS IN RURAL AMERICA AND MAINTAIN THEIR ECONOMIC VIABILITY? ARE YOU SATISFIED THAT EXISTING STEPS ARE ADEQUATE? IF NOT, WHAT ADDITIONAL STEPS TO ASSURE THAT LAND-GRANT COLLEGES ARE RESPONDING TO ALL PEOPLE OF RURAL AMERICA ARE YOU PROPOSING?

This question suggests, and unfortunately "Hard Tomatoes Hard Times," erroneously implies, that somewhere along the way the land-grant colleges and their extension services parted company with the family farmer. Such is not the case.

Currently, and since its beginning, the Cooperative Extension Service has worked with and conducted educational programs to help producers of food and fiber--the farm people--to increase productivity. This has been an important part of our charge, and hundreds of thousands of farmers across the nation readily give credit to research and extension from land-grant colleges for their ability to remain efficient and productive at earning a living from the land.

Nearly all of the agricultural production in the Midwest comes from family farms. And extension farm management staffs believe that the family farm will dominate the farm scene throughout the foreseeable future.

Based on their analyses of business records, extension specialists say such family farmers can compete quite effectively with any corporate entities that wish to enter the business. In fact, extension's efforts to make research findings available through extension programs have been an important reason family farm operations are still strongly competitive.

If commercial family farms had not changed as they have, it is likely that we would have seen a rapid shift toward corporate farming. Without the benefits of extension programs and research findings, family farms would not have been nearly so well prepared to compete with corporate efficiency.

It is obvious that work with commercial agriculture has been an important charge of the agricultural phase of extension work, and one in which a bright chapter has been written--at least for those who have taken part in the programs available to family farmers and farm workers. Again, it is imperative to recognize the voluntary nature of extension programs.

In a paper presented at the OECD Working Conference of European Directors of Agricultural Advisory Services in London, England, last year, Dr. Howard Diesslin, director of the Indiana Cooperative Extension Service, presented a most meaningful expression of extension's commitment to the family farm. The following paragraphs are quoted from that report.

"The extent of the industrialization of U. S. agriculture--viewed as the U. S. food industry--can perhaps best be understood by a breakdown of who contributes what to the value added in the food industry (See Table). Farming contributes but 15 percent today in American agriculture. The remainder has been transferred to other sectors of the food industry. Viewed from this backdrop, we examine the nature of extension's contribution to the various sectors of commercial agriculture in the United States."

Value Added in the Food Industry, U.S.A.*

Sector	Percentage Contribution to Value Added in Food Industry
Farming	15 %
Farm Supply Industry	23 %
Food Processors and Manufacturers	35 %
Retailers and Wholesalers	21 %
Transportation Industry	6 %
TOTAL	100 %

*Shaffer, J. D.: "On the Nature and Significance of Marketing Research," U.S.D.A., ERS, Washington, D. C.

"Against the backdrop of the current make-up of commercial agriculture in the U.S., what sectors of commercial agriculture does extension serve, and at what level? A careful review of the agricultural field staff and specialists was made in Indiana to determine the current nature of their clientele.

"First, to whom does the field staff throughout the state provide educational services in agriculture (See Table)? The specialized agents are listed and the nature of their clientele. The overwhelming percentage (90 percent) of their clientele are agricultural producers. Among the 10 percent of their work with agri-business, one must recognize the nature of it. The major portion of their work would be to provide technology to the agri-business firms who in turn would be better equipped to advise their customers. In a sense, the agri-business firms then become another source of extension information. The major share of this limited amount of work by the field staff would be with the farm supply industry--extremely little with food processors, manufacturers, retailers or wholesalers. Almost none of the education is on marketing in the economic sense. The field staff specialist is almost totally producer oriented on an industry basis; i.e., swine, crops, dairy and the like. Even the management staff (12 in number) with direct responsibilities for marketing educational work do very little with agri-business firms.

Agricultural Area Agents (Field Staff) by Specialization
and Clientele, Indiana Cooperative Extension Service, 1971

Specialization	Number of Agents	Clientele	
		Producers	Agri-Business
Farm Management and General Agriculture	12	90 %	10 %
Crops	17	90 %	10 %
Livestock:			
Beef and Sheep	7	90 %	10 %
Dairy	7	90 %	10 %
Swine	10	90 %	10 %
Poultry	1	90 %	10 %
Horticulture	7	85 %	15 %
Forestry	2	90 %	10 %
TOTAL	63	90 %	10 %

"Second, to whom does the University Specialist provide educational services in agriculture? As was true with the local Area Agents, the overwhelming percentage of their clientele are agricultural producers (75 percent). Likewise, the major share of their work with agri-business would be providing the latest producer technology to the agri-business firm who in turn would extend this information to their customers. More of the specialists work would be with food processors, manufacturers, retailers and wholesalers than was true of the field staff. Even so, the farm supply industry would be the major recipient. Except for the work of the six marketing specialists, almost none of the educational work is on marketing in the economic sense.

"This paper tries to describe what is -- not what could or should be -- relative to agricultural extension in the United States.

If we accept the value added concept, we would expect 85 percent of our agricultural extension effort with agri-business--farm suppliers, food processors and manufacturers, retailers and wholesalers, and related transportation industries. Perhaps 5 percent--10 percent at the very most in some states -- of our agricultural extension work is on the economic aspects of marketing with agri-business. This is likewise true in agricultural policy; the marketing aspects of policy have received little support from the land-grant universities and the Extension Services. Agricultural research would have only a slightly higher percentage of its funds committed to economic marketing research.

"The American public is committed to the family farm of the United States--in research and extension! The corporate marketing structure is economically strong enough to develop and carry out its own research and development program in the eyes of the public through its elected representatives--the Congress. Until the attitudes of the U. S. people change in this regard, I doubt seriously if extension will expand its efforts significantly with this sector of the food industry. During its second century, the land-grant university, through its Extension Services, will continue to give highest priority to the individual farmer and the common man."

While the Extension Service continues to be committed to educational programs for the family farmer, it also recognizes that farmers today are total citizens of their communities.

For this reason, extension, too, must direct attention to other aspects of farm people's lives in addition to the producing of food and fiber.

The report "A People and a Spirit" lists the objectives, or missions, of extension work on a national level. And these missions must be kept in mind when considering the other types of programing provided rural people through extension.

The missions are as follows:

1. To help people efficiently produce range, farm and forest products.
2. To help people optimize their development as individuals and as members of the family and community (children, youth and adults).

3. To help people raise their level of living and achieve their goals through wise resource management.
4. To help people improve their community organizations, services and environment.
5. To help people increase the effectiveness of the marketing-distribution system.
6. To help people develop as informed leaders for identifying and solving problems in a democratic society.
7. To help people protect (conserve) and effectively use natural resources.
8. To assist people with the social and economic development of other countries.

While the Extension Service is proud of its record of serving the needs of farmers and others during the past 50 years, it sees tremendous opportunities for improving its efforts and increasing its impact. The report "A People and a Spirit" provides basic guidelines for needed growth and development of this unique educational system. We urge the committee to thoroughly review the report for greater detail than that presented in "Hard Tomatoes Hard Times."

QUESTION ONE: TO WHAT EXTENT HAS THE LAND-GRANT COLLEGE SYSTEM ASSUMED RESPONSIBILITY AND DEVELOPED PROGRAMS TO ASSIST FARMWORKERS AND FARMERS AND OTHERS IN RURAL AMERICA WHO HAVE BEEN DISPLACED OR AFFECTED BY THE DEVELOPMENT OF NEW AGRICULTURAL TECHNOLOGY?

This question, of course, suggests concern for two audiences. The first audience is composed of farmers and their families who have left farming as an occupation because they have been replaced by improved production technologies--machines and methods. The second audience is composed of farmers and their families who are still farming but who have been affected by agricultural technology. Extension shares the concern of this committee for both audiences.

Before specific answers can be given for the above question, we need to consider the nature of technological changes and the nature of the Cooperative Extension Service which is, in the final analysis, a system for voluntary continuing education.

There can be little question that through research and extension education, the land-grant educational system has contributed to the technological changes that have taken place in agriculture. The objective of these changes has been to increase the efficiency per man of agricultural production and to improve the quality of agricultural products. Such changes have taken place in nearly every segment of our society since this country was founded. Supermarkets have replaced the corner grocery store. Automobiles are now produced by the thousands on assembly lines rather than in backyard garages. Houses are prefabricated, reducing the number of men it takes to build a house.

There are few who would support the premise that our national objective should be to decrease efficiency of production per man--or to even keep it forever constant. It is the nature of a dynamic economy to increase its efficiency, and in all areas of our society such increased productivity per man has generally resulted in better products for all people at much lower cost. This certainly is true of agriculture. At the same time, such technological changes produce counterbalancing stresses and problems for society to deal with.

In the case of agriculture, at least, much of the benefits of technological change have been passed on to the consumers of agricultural products.

As background, the following points seem essential to an understanding of the system of voluntary continuing education that is extension.

1. The system is voluntary. Educational information is made available to people, but it is not, and cannot be, imposed upon people. Given the availability of knowledge, an individual can change or not change as he or she sees fit.

2. Educational information is available to all who want the information and who can make use of it. Each year each state holds thousands of educational meetings at state, area, and county levels. All such meetings are open to anyone who wishes to attend.

They are adequately publicized through public media, posters, and direct mail. But there is no way to require any person to attend any meeting. He or she must make the effort to attend such a meeting to acquire technical information. At the same time literally millions of items of educational information are made available to the people in each state via a wide variety of public media--magazines, newspapers, radio and television. Similarly, free extension publications are available for all who ask for them. It is obvious, however, that there is no way to require readership of magazines and newspapers, viewing of television shows, or listening to radio programs. Neither is there a way to require any person to ask for or to read an educational bulletin or circular.

3. Most of the educational information available through extension programs in the various states is not directed toward or restricted to a particular income level, size of farm. Approved cultural practices for growing corn--or any other crop--are the same whether a farmer is growing 100 acres of corn or 1,000 acres. The breeding, feeding and management practices for growing swine are the same whether a farmer raises 100 head of hogs or 1,000 head of hogs (admittedly there is some specialized information that can be made available to farmers with specialized large-enterprise operations).

4. Nearly all studies of the effectiveness of education support the premise that education is most effective when those who are to be educated have a voice in both the program and content. Therein lies the strength of the Cooperative Extension Service since its programs are based upon the expressed needs of the people who will be served. These needs vary from county to county within a state and from state to state. Here again it does not seem wise to assume that education can be imposed upon people from a national level. There is little evidence that would give credence to the idea that extension would be more on target if directed from the federal rather than state or local level. Indeed one of the strengths of the CES lies in the development of programs to meet local problems and the needs of local people as determined by them.

We return now to Senator Stevenson's specific question--extension programs to assist farm workers displaced by technology.

We should recognize first of all that not all of the reduction in number of farms can be charged directly against agricultural technology. A large percentage of those who leave the farm do so because they have reached retirement age and have no logical successor within their family. Another group leaves because they have found employment opportunities more in keeping with family goals. And still another group leaves the farm because they realize they simply lack the diverse competencies necessary for modern agriculture. Having noted this however, it is a fact of our times that modern technology has made it possible for fewer people to produce food and fiber for the nation.

Many states have established area agent positions in community development to lead this work because it generally transcends county lines and focuses on growth centers.

The Rural Development Act of 1972 contains funding authorization badly needed to help Extension and Colleges of Agriculture assist communities to develop in ways that will lead to greater opportunities for off-farm employment in rural areas.

We would suggest the following reasons that Extension has not developed other programs:

1. Extension's educational programs are based upon scientific research--primarily in agriculture, family living, and the related fields--conducted by state experiment stations. The results of agricultural research programs are converted into agricultural extension programs appropriate for farmers.

When a person leaves farming, however, extension does not have a research-based platform on which to base a new kind of educational program service except in family and consumer-related concerns. And it does not seem likely that experiment stations could ever keep research programs developing at the pace necessary to match the many diverse vocations that ex-farmers might choose. In fact, there is a real question as to the desirability of their trying to do so.

2. Extension has recognized that it cannot be all things to all people. It has therefore pursued the benefits of cooperating with other educational institutions in joint programs of concern for displaced farmers. Extension must constantly capitalize on its uniqueness and not duplicate other programs. Vocational training for non-farm employment is not one of the charges that the Congress has given to the Extension Service.

In many states, extension is working closely with high school vocational agriculture departments and with a growing number of junior colleges with vocational programs to identify the need for retraining programs and to formulate such programs.

For example, in Illinois a community resource development area extension adviser is leading and coordinating a manpower-development program aimed at rural areas. As part of the program, a junior college is conducting a labor survey with the cooperation of the Department of Labor and the State Employment Service Office.

Results of the survey will help extension plan its educational programs. The results will also help the local employment office with its placement service and the junior college in its vocational and technical training programs. The manpower-development program will help the people of the area more accurately assess future job opportunities and upgrade their skills to take advantage of what will be available.

The overall effect will be to more effectively provide job training and education that matches job availability in the area. The program is funded through the Extension Service and is also recognized as a national Consorted Services Program.

3. Extension responds to the expressed needs of people as relayed through an intricate system of advisory councils and committees at the local level and it also responds to the mandates of Congress.

This system has a good record of keeping extension working on concerns of local people and on the concerns of Congress as reflected through mandates and funds.

Programs have grown with rural residents and urban people and more funds have been sought to expand such programs. However, to be effective with those who are poorly educated, it is frequently necessary to work on a one-to-one basis and present resources would not go very far toward meeting the needs. Here again, extension has recognized that many social agencies have been set up to meet many of these needs, and extension has cooperated to make them more effective. In addition, special consumer programs have been launched by extension and, of course, the Expanded Food and Nutrition Education Program, for which special funds have been provided, strikes directly at the problem.

What about the second audience--farmers still on the farm who have been affected by agricultural technology?

Neither extension nor the total land-grant college system could have isolated farmers from the technological trend in this country--even if it were considered desirable to do so.

Many farmers, especially those with small units and those with marginal managerial competencies, will continue to be caught in the cost-price squeeze.

The small farmer as well as his larger neighbor, benefits from efficiencies of production. The need is for specially developed management programs and for more effective motivation methods and delivery systems.

Too often, it is the marginal farmer who could benefit most from extension's programs, but who, for a variety of reasons, does not attend meetings, field days and other educational events. Similarly, it is he who is most difficult to reach through the public press and broadcast media.

What is the answer?

In the typical state, for example, the average number of extension staff members per county working with adult audiences is 1.5. If these total resources were shifted to a counselling-type service for low-income farmers, we could reach only a small percentage of the potential audience.

Effective programs with disadvantaged farmers require intensive work by specialized field staff trained in counseling and guidance, group dynamics and management techniques. Ways and means of reaching more persons among this group was the subject of an intensive study by Extension in 1967.

The report of the Project III Committee to the Extension Committee on Organizational Policy (ECOP) is entitled "Extension's Responsibility to Farmers and Ranchers with Gross Farm Income Less Than \$10,000."

In the section on financing, the report lists the basis for program implementation for reaching the people in that category in 1967.

These are the points:

- a. Initial efforts should be directed to full-time and share-operators (about 1.2 million farmers) to determine their specific classification, interests and potential opportunities.
- b. Major continuing efforts should be directed toward the full-time farmers' productive potential and interests in agriculture.
- c. Twelve hundred additional agents would be required nationally to work with 600,000 of the 1.2 million. Assuming that one specialized field agent can work with a total farm operator population of 500 over a period of years, the present remaining staff will continue to work with the remaining 600,000.
- d. A minimum of 200 additional man-years equivalent of specialist time will be needed to adequately support the specialized agents.
- e. Pilot efforts should be explored to determine the effectiveness and best use of extension aides. A ratio of three aides to each professional requires 3,600 extension aides.

The critical fact of limited resources is one reason Extension Services in most states have placed increased emphasis on mass media and the "wholesaling" of information through representatives of other groups and agencies who are in contact with this audience.

However, special programs have been developed for many low-resource farmers by redirecting present resources and through special project grants. These efforts have been successful and funds have been requested in the federal budget for several years to implement the recommendations of the study.

QUESTION THREE: WHAT DO YOU SEE AS THE APPROPRIATE FUTURE ROLE OF THE COLLEGES OF 1890, THE SO-CALLED "BLACK LAND-GRANT COLLEGES"?

Colleges of 1890 have a challenge, an opportunity, and an important role to play as a part of the total research and educational effort required to help solve the problems of rural America. Organizational arrangements now provide for these colleges to become an integral part of the total planning process in cooperation with the Land-Grant Colleges of 1862. Together they will designate responsibilities for phases of the program to assure that existing and future competencies will be most effectively used.

The subcommittee will be provided with an elaboration of the roles of the Colleges of 1890 by a distinguished representative of those colleges.

QUESTION FOUR: WHO ARE THE CURRENT BENEFICIARIES OF THE RESEARCH AND OTHER EFFORTS OF THE LAND-GRANT COLLEGES, AND DOES YOUR ORGANIZATION CONSIDER THE CURRENT ALLOCATION OF INSTITUTIONAL RESOURCES AND DISTRIBUTION OF BENEFITS EQUITABLE?

Science and technology have played leading roles in the development of our U. S. economy. Publicly supported research in the state agricultural experiment stations and the USDA has been the primary source of new information for the food and agricultural fiber industry of this country. The state agricultural experiment stations are a part of the state university system of education, research, and extension education with the focal point of these programs being the colleges of agriculture. Agricultural research often carried out jointly with USDA research agencies is buttressed by privately supported industrial research. One of the characteristics of American agriculture that has won worldwide acclaim is its strong publicly supported research program that provides a scientific and technological base so important to modern agriculture.

In answering questions on the beneficiaries of research carried on by land-grant colleges, one must consider the inherent nature of scientific research and investigation in the broad context of our national scientific endeavor.

Recognizing the danger of oversimplification, we suggest that there are two basic categories of research. The first, and perhaps most important, is research that is designed to discover new knowledge without knowing at the time the research is done exactly how this new knowledge will be used in the real world. Some tend to refer to this type of research as basic or fundamental research, and the members of this committee are familiar with its role in ultimately guiding programs of economic and social improvement.

The second category of research, often referred to as applied research, seeks solutions to problems identified by various segments of the food and fiber industry. In addition, farmers themselves often identify problems needing research.

The state experiment stations of our state land-grant colleges are actively involved in both categories of research, and it is rather academic to engage in a debate on whether basic or applied research is the most important. Basic research with no hope of future application is wasted. Applied research without its roots in basic research is little more than guesswork.

In most state experiment stations research projects can be grouped under the following broad classifications:

1. Those designed to improve the efficiency of farm production and the quality of farm products.

2. Those designed to improve the management and decision-making processes in the operation of the total farm enterprise.

3. Those designed to improve the effectiveness of marketing procedures and to maintain product quality.

4. Those designed to foster the development of stronger rural communities and the social and business institutions serving both farm and non-farm publics.

5. Those designed to conserve our natural resources and to improve the quality of our environment.

6. Those designed to improve family living and the conservation of human resources.

7. Those designed to improve the health and welfare of both animals and people.

In each of these categories there are usually three beneficiaries of research.

The first and perhaps the most important beneficiary of all agriculture research, regardless of category, is the general public. Through research, the general public has been provided with high-quality foods at the lowest possible cost. Through research, the general public has been provided knowledge to improve health, communities, family life and social institutions.

The second beneficiary group, of course, is composed of those farmers who apply the knowledge gained through research in producing food and fiber and who also improve their managerial skills. As indicated in our response to questions one and two, research knowledge is made available to all people and is not restricted to any one audience by level of income or size of enterprise. It is regrettable that not all of the farmers take equal advantage of the knowledge that is made available to them.

The third beneficiary group is composed of those businesses and industries which provide production inputs for agriculture and which also provide processing, distribution and sale of agricultural products.

A few examples should be ample to illustrate these points.

The table (following page) prepared by agricultural economist John T. Scott, Jr., of the University of Illinois College of Agriculture shows the effects of agricultural research coupled with educational programs on certain production and price structures for the period 1950 to 1970.

Production and Price Changes 1950-1970

<u>Corn</u>	<u>1950</u>	<u>1970</u>	<u>% Change</u>
Production	2.8 billion bu.	4.4 billion bu.	+57%
Yield/acre	39.0 bushels	78.0 bushels	+100%
Domestic feed use.	2.5 billion bu.	3.6 billion bu.	+44%
Actual price in current dollars	\$1.49 per bu.	\$1.20 per bu.	-24%
Estimated 1970 price with 1950 production	\$1.49 per bu.	\$2.11 per bu.	+42%

<u>Beef</u>			
Production	9.3 billion lb.	21.2 billion lb.	+128%
Per capita	60.6 lb.	111.4 lb.	+84%
Actual price in current dollars	\$.69 per lb.	\$.60 per lb.	-13%
Estimated 1970 price with 1950 production	\$.69 per lb.	\$1.36 per lb.	+97%

<u>Pork</u>			
Production	11.2 billion lb.	13.2 billion lb.	+18%
Per capita	71.2 lb.	65.9 lb.	-7%
Actual price in current dollars	\$.35 per lb.	\$.34 per lb.	-3%
Estimated 1970 price with 1950 production	\$.35 per lb.	\$.40 per lb.	+14%

<u>Poultry</u>			
Production	3.3 billion lb.	12.1 billion lb.	+267%
Per capita	26.3 lb.	44.7 lb.	+70%
Actual price in current dollars	\$.30 per lb.	\$.16 per lb.	-47%
Estimated 1970 price with 1950 production	\$.30 per lb.	\$.58 per lb.	+93%

Using corn production as an example, farmers, by applying the results of research, were able to increase yields per acre 100 percent during the 20-year period and total production by 57 percent. This increased production permitted a 44 percent increase in the amount of corn used for livestock feed. While the yield per acre and the total production went up during this period, the price per bushel decreased by 24 percent. If we had maintained corn production at 1950 levels, there would have been less available as livestock feed and the price per bushel would have been 42 percent higher.

When corn production is translated into livestock production, we see how the consumer has benefited. Because of increased feed supplies, farmers were able to increase beef production 128 percent permitting an increase of 84 percent in per capita beef consumption, but the price per pound decreased 13 percent. If we had maintained production levels at the 1950 figure, beef prices would have been 97 percent higher in 1970 than they actually were. A comparable picture unfolds in the area of poultry production, and there has been some benefit to consumers in pork production.

In summary, then, we can say that research in the area of food production, with special emphasis on corn production, has resulted in the following benefits:

1. Greater volume of food at lower prices than otherwise would have been possible.
2. Composition of the diet higher in animal products than would otherwise be possible.
3. Increased share of the consumers' income made available for non-food items.
4. Labor and other resources from food production released for other production and services to consumers and society.
5. Gains to innovative farmers and landowners sufficient to bring forth this abundant supply.

Two years ago the nation's corn supply was threatened by southern corn leaf blight. Through the application of corn breeding research conducted at the state experiment stations and by commercial corn companies, it was possible to provide farmers with hybrid strains of corn which were either less susceptible or not susceptible at all to this disease. How does one identify the beneficiaries of this research?

The recent "Hard Tomatoes, Hard Times" quoted research effort as measured by scientist-man-years in the state agricultural experiment stations in fiscal years 1966 and 1969. It does not land

credibility to the study to have used fiscal 1969 data when 1970 and 1971 could have been obtained as a matter of public record. Furthermore, a casual appraisal of only one phase of a program as complex as the state agricultural experiment stations can easily lead to misrepresentation of facts. Let us highlight a few points. Measured in terms of scientist-man-years, total research effort of the agricultural experiment stations decreased from 6,149 SMY in 1966 to 5,713 SMY in 1971. This is a decrease of 436 SMY's or 7.1 percent. During the same period there was an increase from 230,696,000 to 301,030,000 dollars. This is an increase of 70,334,000 dollars or 30.5 percent. Seventy million dollars is a substantial increase in funds. However, assuming a 6 percent annual increase in costs of doing research, which is actually less than that which has occurred, it would have required an increase of about 96 million to have maintained program at the current level of FY 66. Thus, in effect, programs at the state stations in FY 71 are short about 26 million to keep up the level of FY 66.

Although there was a net decrease of 436 SMY's during the period FY 66-71, some of the research problem areas were substantially increased. Increases are particularly significant considering that it was necessary to shift resources out of what was judged to be lower priority areas into those of higher priority. For example, one group of research problem areas listed as "Improved Community Services and Environment" was increased from 421 SMY in FY 66 to 605 SMY in 71. This is an increase of 184 SMY or 43.7 percent. During the same period there was an increase of 13 million dollars in funds in this area of research or an increase of 88 percent. This emphasizes that not only were the SMY's increased, but an even larger increase was made in funds so that scientists working in this area were more adequately supported than they had been previously. In another series of research problem areas grouped under the general heading "Raise Level of Living of Rural People" there is a decrease of 2 SMY from 140 in FY 66 to 138 in FY 71. This is a decrease of 1.4 percent. Their increase in funds during this same period gives a somewhat different picture. There was an increase of 2.6 million dollars from FY 61 to FY 71 which is a 65 percent increase over the FY 66 level.

These examples serve to illustrate priorities placed on these two important areas of work by the state agricultural experiment stations and to indicate that substantial shifts are being made to meet the needs even though in total the effort still falls far short of the needs.

QUESTION FIVE: WHAT MECHANISMS ARE NEEDED, IF ANY, TO MAKE THE LAND-GRANT COLLEGE SYSTEM ACCOUNTABLE TO THE PUBLIC INTEREST? ARE CHANGES NEEDED IN THE COMPOSITION OF ADVISORY COMMITTEES AT EITHER THE NATIONAL LEVEL OR ON INDIVIDUAL CAMPUSES? IS IT NECESSARY TO HAVE MORE PUBLIC DISCLOSURE REGARDING RESEARCH PROJECTS, ADMINISTRATIVE OPERATIONS, FOUNDATION ACTIVITIES, FISCAL POLICIES, PATENT AND LICENSING PRACTICES, INDUSTRY CONTRIBUTIONS, AND POTENTIAL FACULTY CONFLICTS OF INTEREST?

We would submit that the success of extension in the respective states has resulted from two key characteristics. First, the close partnership of extension with the state experiment stations which has provided input of scientifically-validated knowledge upon which to base educational programs. And second, its responsiveness and accountability to local people and their problems at the county level.

It is doubtful that one can find very many programs in the United States whose programs and finances are reviewed by so many people. For the most part, Extension people and their work are totally exposed before the many councils and planning committees. And it is important to remember that more than 90 percent of the people making up the advisory councils in the 3600 counties in the nation are farmers and homemakers--not representatives of agri-business firms.

The strength of extension, contrary to suggestions in the report "Hard Tomatoes Hard Times", lies in the involvement of local advisory councils and committees, and local groups and program-planning units. Obviously, not all advisory committees and planning groups in each county of each state have adequate representation from all possible audience groups. But there is a continuing effort to make such groups as representative as possible within the realities of effective program management.

The work of the Cooperative Extension Service is on continuous public display. Public print and broadcast media are effectively used not only to carry educational information but to inform the public concerning educational meetings, field days and other events. In many states--perhaps most--local extension programs are reviewed by county governing boards which must appropriate county funds to help support local extension programs. Extension programs are further scrutinized by state legislators who appropriate state funds for extension work. Reports are filed annually with the state and to the Congress of the United States. In addition, the states are using SEMIS, a computerized management information system, that allows each extension staff member and administrator to see where time is being spent.

Finally, extension is now subject to all federal requirements for civil rights and equal employment opportunity.

Another point to consider is the constant evaluation extension workers get because participation in their programs is voluntary. Programs that lack relevance, or in other ways are inadequate, are quickly exposed because people simply will not participate in them.

In all candidness, we cannot believe that new or additional mechanisms are needed to assure responsiveness to the needs of people or accountability for existing programs.

In the area of research, we would point out that land-grant colleges are public institutions and, as such, the records are available to the public. From years of experience it has been determined that no useful purpose would be served by making general release volumes that would be required to list the titles and objectives of more than 16 thousand projects especially since the real meaning of total research efforts are recorded as published journal articles and bulletins. For those interested in specific areas of work, the information is available and is frequently provided to show the nature and level of research effort. In fact, beginning in 1966, there is an annual inventory of all SAES and USDA research made a matter of record and updated annually in what is called the "Current Research Information System". In addition to the listing of SMY and funds for each of the more than 20 thousand research projects, there also is given the objectives of each of the projects and a brief progress report along with publications. A summary of the SMY and funds are published annually. Progress reports and similar information are in the system and are available to anyone on request. We have been working hard to improve this system and real progress has been made. It is no simple task to develop and maintain a system this complex that will be as readily available on short notice. We eventually hope that it will be.

Most of the state stations have advisory committees that have important inputs in identifying the priority problems for research at the state stations. These representatives are selected from leaders representing all segments of society. It is not easy to assure complete representation on these advisory committees because some groups do not have recognized spokesmen. The 17 advisory committees to the Wisconsin Agricultural Experiment Station is illustrative of how these operate. Some 280 persons selected from all walks of life with about 90 percent of them representing lay people in the communities are selected on the basis of their interests and competency in certain areas of work. They meet annually with the administration and staff of the state agricultural experiment station. They review the current program and make suggestions for changes and additional emphasis on areas that they feel to be important. The director of the station with this information along with that which is provided by his own staff is then able to reflect overall priorities for research emphasis at the Wisconsin station. Problems vary widely from state to state but the priorities aggregated from all states are more likely more nearly to reflect the national needs than will an effort by a national group which at best can not be familiar with the details to arrive at meaningful goals.

6-24-72

The 1890 Land-Grant Colleges --

Past, Present and Future

A

Statement Before the

U. S. Senate Subcommittee on Migratory Labor

by

President Alvin I. Thomas, Prairie View A & M College

for the

National Association of State Universities and Land-Grant Colleges

June 20, 1972

(Prepared with the assistance of Dr. Herman B. Smith, Jr., Director, Office for Advancement of Public Negro Colleges and Dr. Ozias Pearson, Director, Rural Community Assistance Consortium, National Association of State Universities and Land-Grant Colleges.)

For almost one hundred years black institutions, commonly referred to as 1890 schools, have functioned as land-grant colleges serving black, brown, and poor white people of merit and need in rural, as well as urban, settings in terms of their perceived human needs and in terms of needs and opportunities in the general American society.

The Past

Alcorn Agricultural and Mechanical College in Lorman, Mississippi, was designated in 1878 by the Mississippi legislature as a land-grant college for Negroes under provisions of the Morrill Act of 1862. The first president, Hiram R. Revels, who was the first black man elected to the United States Senate, resigned that position to assume the presidency of Alcorn because he saw it as a greater opportunity to be of service to his people during a time of great need in a region where people suffered from their need for leadership, education, and service.

Legislative and congressional activity and inactivity prevented Alcorn A & M College from receiving funding as entitled by reason of its status as a land-grant institution. The activity and inactivity, however, did not prevent the institution from setting about the task of developing a program designed to provide broad leadership, educational opportunities, and service activities for the severely disadvantaged black people of Mississippi during the latter decades of the last century.

Following establishment of the first black land-grant college other such schools were established or designated at different times through 1968, the date establishing Federal City College as a land-grant college.

The foregoing bit of generally obscure American history captures the tradition, commitment and record of black land-grant institutions.

Born of real need among a clearly visible constituency; rallied to by the oppressed constituency, both the educated and the uneducated; traditionally underfinanced, and under-supported generally, the 1890 institutions have achieved a remarkable record of leadership, education, and service which is etched indelibly upon the record of educational history in the nation.

During hard years when scarcely any favorable sentiment for their existence was evident and when financial and professional support was difficult to obtain, and then in insufficient proportion, leadership of the 1890 land-grant institutions addressed itself to the task of identifying people, problems, needs, and potential and responding thereto.

The black land-grant colleges have related historically with the problems of human and community resource development. The achievements of these institutions through their products and services have been nothing less than phenomenal when measured against the meager resources they were given, comparatively speaking, with which to do a job. Their graduates have gone on to achieve the highest honors possible through providing services to the individual and the nation. The range of involvement of these products extends from personal advisors to the nation's youth to personal advisors to presidents of the world's top government, the United States of America.

These achievements have resulted from a refusal to shrink or falter in the face of (1) a less than receptive climate, (2) a lack of professional and financial support, (3) a severely disadvantaged clientele to be served, and (4) an assortment of other disadvantaged. The 1890 institutions, then, are not new, untried, or untested.

The Present

Today, one-third of the nation's blacks, nearly eight million, are still poor, according to a recent U. S. government publication, The Poor in 1970: A Chartbook. Many of these individuals live in the non-metropolitan areas of America and account for 47.6 percent of the 25 million poor in our nation. Even more importantly, a vast majority of these individuals have or had their roots planted in the Southern region of America, which accounts for 11.5 million poor, or 45.0 percent of all the poor in the nation. It is in this region, designated as the South by the U. S. Census Bureau, that the seventeen 1890 land-grant institutions, including Tuskegee Institute, are situated. These institutions have been providing vital services to meet the needs of their individual states, as well as the region, the nation, and the world, since the latter quarter of the nineteenth century.

The fact that some 60 percent of the nation's blacks still live in the states in which the 1890 institutions are located, with close to 50 percent of these still residing in rural areas, serves further to dramatize the need for additional funds to properly support them. The challenge for these institutions to keep abreast of societal needs is also heightened by the recent phenomena of an increased poverty coming on the heels of a decade of prosperity. Fifty-three percent of the 1.1 million increase in the number of poor between 1969 and 1970, occurred outside of our metropolitan areas.

The greatest resource to be found in the rural areas of America, now as at the time of the initial establishment of the land-grant college concept, is the human resource. It is the development of this most important resource that has and continues to command the attention of the 1890 institutions.

Preliminary statistics for the June, 1972 graduations at the 1890 institutions indicate that slightly more than 12,000 students, mostly products of poor economic backgrounds, were graduated. Consistent with efforts to meet the challenges of expanded educational, vocational, and societal needs, an increasingly large number of these graduates were trained in new areas of specialization such as human ecology and computer technology.

While it is an historical fact that the 1890 colleges have not received an equitable allocation of financial resources, the prospects of positive change loom ahead. It is encouraging to note that the black institutions are receiving and profiting from an increased level of financial support from federal agencies, especially the United States Department of Agriculture. Through USDA, twelve and one-half million dollars for research and extension became available to the 1890 colleges in FY 71. Major programmatic foci generated, subsequently, by the colleges support the mission to address pressing human resource development problems of rural America.

An important start has now been made. Today for the first time the 1890 institutions are receiving rather significant grants from the U. S. Department of Agriculture for research and service projects which promise to be of significance for their historic constituents and for the entire nation.

Illustrative grants help to document the generalizations:

Florida A & M - an initial research grant of \$265,000 to study the migratory habits of the mayfly. The grant is renewable for the remainder of this century. A FAMU professor, Dr. William L. Peters, is an authority on the insect, and the role and impact of mayflies migratory habits upon continental drift. The findings may support the theory that the continents were once a solid land mass that have drifted apart.

Fort Valley - an initial grant of over \$200,000 for research on the poverty cycle in rural families; the location and the historic service of Fort Valley qualifies it to take a unique approach to this opportunity.

North Carolina A & T - an initial grant of \$135,000 to conduct research on occupational hazards in agriculture and rural industry. Two additional grants totaling \$275,000 to study and evaluate clothing needs of low-income families and ways of improving the quality and lasting value of freeze-dried foods.

South Carolina State - over \$475,000 for a study of the nutrition and health status of rural county residents as a guide for ameliorative measures.

Prairie View A & M - over \$750,000 from the Cooperative State Research Service to gather and evaluate basic data which will guide future programs to help "the people left behind."

"Food Choices and Nutritional Health of Older People"

"Factors Affecting Patterns of Living of Disadvantaged Families"

"Changes in the Nature, Composition, and Socio-Economic Conditions of Black Families in Texas"

Virginia State College - a half million dollar grant to research and develop practical applications to problems of low-income agricultural and business groups that are faced in developing countries. The basic focus will be directed to the fields of economics and agricultural economics.

The records will show further that major efforts are being developed to express tangible concern for the perennial problems of rural America such as health, nutrition, economic, and manpower development, child development, recreation, and problems of the aged.

In June 1968, the Office for Advancement of Public Negro Colleges was established by the National Association of State Universities and Land-Grant Colleges. The office, located in Atlanta, Georgia, serves to interpret and promote the mission of these colleges and universities to larger publics.

The Rural Community Assistance Consortium represents a further effort by the National Association to maximize the potential for service inherent in the black land-grant colleges. The Consortium was established in June, 1971, under a two-year grant of \$290,000 from the Office of Economic Opportunity to the National Association. The Consortium operates out of the Atlanta office of the Association. Its basic objective is to increase the demonstrable capabilities of the member schools to attract and maintain funded programs and qualified resource personnel as aids to upgrading human and community resources in rural areas serviced by the 1890 land-grant institutions.

Through the efforts of RCAC, Consortium schools are beginning to acquire a variety of rural service programs. Close to two million dollars worth of grants have been acquired or are in process as a result of the stimulation promoted during its first year of operation.

There yet remains the need for an acceleration of financial resources by USDA and other agencies in order for the 1890 schools to achieve their fullest potential.

The Future

The heroic accomplishments of the 1890 colleges cannot continue without, significantly increased moral and financial commitments. The 1890 colleges have brought black and poor peoples from the point of gross deprivations to the threshold of a democracy. They stand on the brink of achievements but it

is not yet within their grasp. They cannot promise to continue to build bricks without straw; to carry water without buckets; to hew wood without axes; nor should they be expected to exist as they have in the past, without encouragement, increased funds, and a national commitment.

The 1890 colleges are essential to achieving solutions of America's people problems. Possibly, the problems cannot, and will not, be solved without the proper development of a collage in which these colleges are a distinct part of the picture and are yet able to maintain their uniqueness and individuality. The problems of the poor, the jobless, and the disadvantaged suffer for solutions in the shadow of the 1890 colleges.

The question has been raised as to the appropriate future roles of the 1890 colleges, the so-called "black land-grant colleges." There are six generalizations which should be articulated as prerequisites to outlining new roles. They are

- 1) The 1890 colleges are not new, untried, and untested institutions.
- 2) These institutions have served the nation, their respective states, and local communities productively and consistently under less than favorable conditions as responsible institutional centers of goodwill, community leadership, and economic opportunity.
- 3) Most of these schools are located strategically and are serving a preponderance of black and brown people in a unique way.
- 4) The 1890 colleges have shown, by and large, the disposition and the ability to grow and change with the times.
- 5) From their inception, the 1890 colleges have been what their own governing boards have expected, required, and permitted them to be.
- 6) During the contemporary period with increased concern for (a) expanding educational opportunities for black and brown people; (b) improving the quality of life for all in America; and (c) identifying and channeling needed human and financial resources to accomplish the two preceding goals, it is not unreasonable to conclude that the 1890 colleges are well-suited to assume new roles commensurate with developing thrusts in the nation.

There is no feeling that the 1890 colleges have exhausted their traditional roles in the higher education and the social scheme. Rather, the evidence points to the need for intensification of their historic objectives in response to America's continued manpower needs. Thus, six possibilities are suggested as new roles for these colleges. The new roles include:

- 1) The 1890 colleges could participate meaningfully and substantially in the whole effort by the several states and the federal government to alleviate and solve rural and urban problems.
- 2) The 1890 colleges could be full-fledged partners in the current thrust to probe and develop the potential for improving the quality of life in rural and urban America.
- 3) The 1890 colleges could be a reservoir of well-prepared personnel for service in the respective branches of state and federal government.
- 4) The 1890 colleges could be more active participants in supported research and services.
- 5) The 1890 colleges could be the states' principal educational agencies in those areas where there is no other established multipurpose public institution of higher education.
- 6) A central role for the 1890 colleges is one of preparing personnel who will be able to attack and solve "people problems," and to provide an education suitable to the needs of the "common people."

[From the Prairie View City News, May 26, 1972]

ONE MILLION PLUS FOR P.V. A & M To Help "PEOPLE LEFT BEHIND"—FUNDS BY THE COOPERATIVE STATE RESEARCH SERVICE (SRS), AND THE AGRICULTURAL EXTENSION SERVICE, DEPARTMENT OF AGRICULTURE, UNITED STATES

PRAIRIE VIEW.—Prairie View A&M College of Texas has received \$1,080,152 in grants to help "The People Left Behind" in Waller and neighboring Southeastern Texas Counties. The grants are funded by the Cooperative State Research Service (CSRS) and the Agricultural Extension Service of the U.S. Department of Agriculture under PD 89-106—Special Funds.

Last September, Dr. Alvin I. Thomas, president of Prairie View A&M College, urged members of his faculty to form a planning committee in relation to Agricultural Research Funds and Agricultural Extension Funds which were made available to the 16 black colleges, known as the "1890s", and Tuskegee Institute in Alabama.

A Prairie View team composed of Mr. J. C. Williams, dean of the School of Agriculture, Dr. F. M. Byrd, dean of the School of Home Economics, Dr. W. P. Buckner, head, Department of Health and Physical Education, and Dr. J. I. Kirkwood, coordinator for Prairie View's Research in Agriculture, went on to prepare a comprehensive study which includes three research programs—thrust and three cooperative extension projects.

The research programs funded by \$752,650 in grants are designed for:

**IMPROVEMENT OF CRITICAL LIFE CHANCES, SOCIAL CONDITIONS, ECONOMIC
— RESOURCE**

1) Improving Critical Life Chances, Social Conditions and Economic Resources of disadvantaged minority populations and communities in the Southeastern counties.

DETERMINATION OF ECONOMIC OPPORTUNITIES

2) Determination of Economic Opportunities for rural families in southeastern Texas to improve their incomes.

ENVIRONMENT

3) Improvement of the Environment in rural areas close to urban centers—Houston, Galveston, Beaumont Triangle—of South Texas.

The cooperative extension projects—funded by \$327,502 in grants will be concerned with:

COMMUNITY RECREATION AND OUTDOOR EDUCATION

1) Community Recreation and Outdoor Education to help prepare disadvantaged people to use their leisure in ways which are personally satisfying to them, and which hopefully, will contribute to their full personality development.

FAMILY RESOURCE

(2) Family Resource Development to assist rural families to become aware of and utilize available health facilities and services; increase competence in child development and guidance; acquire skill in dealing with stress situations in the home—unmarried parenthood, drug-abuse, mental illness; utilize youth program aides in extending educational—experience through 4-H like programs for rural youth.

FAMILY FARM DEVELOPMENT

(3) Intensified Family Farm Development to facilitate educational assistance to farmers whose gross income falls below the \$10,000 level to help them increase their agricultural output, and to bring about a change in their economic position.

The research projects will be conducted under the direction of Dr. Kirkwood. The extension projects are administered by Mr. Hoover Carden, as assistant director. Mr. James DeBose is the coordinator of the Community Recreation and Outdoor Education Project.

The grants, the programs and the projects were announced this week by Dr. Ivory W. Nelson, vice-president for Research, and Special Programs, who said: "Prairie View has a long tradition of service to the people of Waller and sur-

rounding counties, mainly in the field of education. We are trying now to reach the people who are not being reached and to provide them with the kind of service, facilities and programs which are available in larger urban areas.

Senator STEVENSON. The next and final witness is Dr. Donald Hadwiger, professor of political science at Iowa State University, Ames, Iowa. He has a Ph. D. from University of Iowa, and is the author of several books on farm policy, and articles and studies of race discrimination and public policy for rural areas.

Welcome to our subcommittee's hearings, Dr. Hadwiger.

STATEMENT OF DR. DONALD HADWIGER, IOWA STATE UNIVERSITY, AMES, IOWA

Dr. HADWIGER. Thank you very much, Mr. Chairman.

I am pleased to be asked to testify on the status of land grant college research and extension. Your subcommittee has a good vantage point for seeing what has happened or has not happened in institutions dealing with rural America. Unfortunately, most land grant researchers, extension people, and administrators have never been obliged to look at rural America from your angle. A fine recent book by a distinguished farm economist was devoted to describing freedoms enjoyed by various participants in the farm economy, and the book did not mention farmworkers. Wasn't freedom relevant to them? Certainly, said the author, and he was at a loss to explain the omission, only observing that the books and articles with which he was familiar had also failed to include farmworkers as among those with legitimate interests in the farm economy.

My own published books deal mainly with commercial farm policy, and one can find in them few references to the interests of rural Americans who do not benefit much or any from these policies. So I hope your committee recognizes that some of us have led sheltered lives. I hasten to add that many people in the experiment stations and extension services do have perspectives seemingly wider than those imposed by their institutions. Some of these people, like others who work for a living, have accustomed themselves to following the boss' cues, and others have worked hard at the task of broadening institutional perspectives. These people will welcome your scrutiny if it has that effect.

A change of priorities is surely in the interest of the colleges themselves. Their obvious dilemma is that as they improve production technology they reduce the number of families and production units involved, and thereby reduce the need for their own resources. Control of diseases in hogs will clear the way for more meat to be produced on feedlots, and the feedlots may prefer to do their own experimentation.

Extension already has too few clients, partly because too many potential rural clients are left out. Glenn Howze of Carver Research Institute at Tuskegee surveyed rural black Alabamans in 1970 and found that only 20 percent had ever been visited by an extension agent. The USDA has confessed it can do nothing about race discrimination in extension, although the Federal Government provides up to half or more of the funding.

Some State extension services have now set up regional offices which are presumably freer than county offices to take on new activities and clienteles. Extension people have also produced a national statement which commits them "to serve more adequately the broad range of social and economic problems of the Nation." Extension spokesmen are quick to cite examples of innovative programs in this or that State or county. You should be curious as to why these programs rarely expand beyond the place of their birth, and curious also as to what extent they were actually implemented in their first locale. Let me suggest a scenario for extension program development which, if it is typical, does much to explain why, year after year, community-oriented extension programs bob up in a pilot stage, and then disappear.

In this scenario, first a group of extension professionals or sometimes a group of citizens recommend a new direction or program.

Next, extension administrators view the idea and express approval, but voice concern that the professionals who proposed the program may not carry it off successfully or that "people are not ready for it yet."

Assuming that the program moves further, the next step is for the college president or extension director to consult with so-called friends of the university, most of them graduates successful in farming, agribusiness, or industry. He seeks to persuade these advisers that the university should move in these new directions, and if he gets a tentative go-ahead the administrator is complimented all around for his leadership. Then a team is put together which develops the program.

Then the program is monitored by extension and university administrators and also by the "friends of the university," and it may be toned down in accord with their suggestions.

Then the team takes the program to the field. They must work partly through local extension agents who will find ways to impede the program if they are afraid that their established clientele will not like it or will not welcome participation by other invited groups.

Assume that the program in this particular case is designed to help a group of urban communities work together on regional development, and that it does generate some action. Local leaders may well ask extension to commit more of its resources, as they have committed themselves, to an expanding developmental role. Meanwhile demands for comparable resources begin to roll in from other parts of the State.

It is at this moment that extension's old political supporters will have no hesitancy in telling the professors and administrators that too many resources are being used on this new project. The extension director will honestly say, "Extension must not run away from its support," and the program will be thinned down to insignificance, even while it may be receiving local and national plaudits and awards.

According to this scenario, extension will wax enthusiastically over those programs that are just getting started or are about to be phased out or both. There is a way for you to find out whether it happens. Presently, the extension services are charged with providing technical assistance and leadership for rural development committees which exist at the State and local level. These committees carry forward the USDA's rural development efforts. This structure has filed its first annual report with the Congress. It refers to 89,000 workshops and meet-

ings held, 22,265 surveys and feasibility studies, 10,000 bulletins and publications, 188,000 radio and 25,000 TV broadcasts, plus major thrusts on specific programs. Many outstanding examples are cited. I would encourage your committee to examine the size, scope, and continuity of any one of these efforts at rural development, beginning with the most spectacular examples that are cited.

The experiment stations too have tried internally to reorder their efforts. In 1965 a distinguished group of administrators cataloged all USDA and experiment station research projects, and they then recommended large percentage increases in research on consumer health, nutrition, rural people, and rural communities. In absolute terms these recommended increases were small, but I suspect that the members of that group are keenly disappointed by failure of these areas to grow, given the greater public interest in consumers, nutrition, rural poverty, and rural development. In 1970 the actual research in all these areas totaled only 16 percent, with the remainder being devoted to one or another aspect of commercial agriculture and forestry.

However, even the figure of 16 percent overstates the product in view of expectations about research for rural people. I cataloged the 1970 research projects on housing, which is one of the items under the heading of rural people, and I found that 80 percent of this housing research was devoted to technical aspects of housing construction and maintenance, and in terms which seemed intended for use by the lumber and construction industries. The other 20 percent of the housing research, consisting of 12.8 scientist man-years, was devoted mainly to describing rural housing conditions and causes. And even this slim product seemed intended mainly as an addition to a body of sociological knowledge, and it was difficult for me to perceive how it would be useful to rural people or policymakers.

Presumably technical efficiencies achieved through housing research will be passed on to consumers, although there was no project which measured the efficiency of the industry. One project did show the benefits of operation research analysis, either for existing plants or for making decisions as to whether to undertake horizontal or vertical integration.

The issue over whether land grant experiment stations and extension services should do less for agribusiness while moving more into human and community concerns is of one piece with the hunger issue raised in recent years, on which this committee played an instrumental role. The linkage between the hunger issue and land grant research is partly in the fact that agriculture's political subsystem tried to control our perceptions of the facts on that issue just as they also decide what is to be researched and taught relative to rural America. In the case of food programs, neither the USDA's administering agencies nor the land grant research and extension system had really communicated the fact that hunger existed and that the programs did not work. The chief vehicle of enlightenment on this and many other matters affecting the rural poor was the civil rights movement and its leaders. But this committee remembers that one of its own subcommittees conducted well-publicized field hearings, and then led the congressional effort to reform the programs, finally setting up a select committee for that purpose. A group of concerned outsiders produced a critical

study of the family food assistance programs, called Hunger USA, and another group headed by Mrs. Jean Fairfax produced a critical study of the school lunch program called Our Daily Bread. These studies met a harsh attack from the USDA and the congressional agriculture committees, as did a CBS documentary called Hunger USA. One congressional committee surveyed all county health officers and this attempt at refutation backfired because not all of the local health officers were defensive about their local conditions. Another committee sent out FBI agents to question local citizens who had given information to the outside researchers. Interestingly, neither the congressional agriculture committees nor the USDA called upon their research establishment to refute the charges, partly because not much research had been funded over the years on the subject of hunger among low-income people, and partly because existing nutrition research did contain reports of inadequate diets and malnutrition. Another reason why the land grant researchers were not useful for refutation became clear when President Nixon assembled professional nutritionists and other interested parties at a White House Conference on Nutrition. These professionals from the land grant schools and elsewhere joined hands with poor people's representatives at the conference to recommend drastic reforms in the food programs. The professionals finally had a legitimate vehicle through which to express their judgment.

So in May of this year, the Department of Agriculture could proudly announce that 90 percent of the Nation's schools have school lunch programs, and it could point to a budget of billions for family food assistance, and note that poor people are able to participate. But everybody knows that these reforms were achieved, and have to be maintained, through constant leadership and pressure from outside—from the black leaders, the media, and continual nagging by a Senate committee.

Effective leadership of these programs remains outside the USDA. In the old days the USDA achieved greatness by hiring visionaries to run a program dedicated to their cause, like Gifford Pinchot in forestry, Hugh Hammond Bennett in soil conservation, Seaman Knapp in extension. Today it seems most unlikely that the USDA would invite any poor people's leader to head up the food and nutrition programs, and most unlikely that these leaders would regard the USDA as a place from which to exert leadership.

There are some reasons for lack of confidence in reform from within the land-grant experiment stations and Extension Service. Undoubtedly some of these parties are anxious to obtain political and budget support which would loosen their bondage to commercial agriculture. They want to change, to do work in other significant areas. But some of the built-in obstacles to change can be illustrated by the development of the nutrition aid program in the Extension Service. The nutrition aide program, as you may know, is Extension's truly substantial, truly nationwide effort to reach and counsel the poor on a variety of subjects. Extension appears to take justifiable pride in a program that was laid on it by its critics. The nutrition aides who carry the message to the poor are hired from among the target population, and Extension often boasts that the aides understand and com-

municate as well as the professional home economists. But Extension has done little to give status to these aides, who are temporary employees paid by the hour. Here as in other cases there is reluctance to open new doors to the subsystem, to break the chain of special interests that make up the agriculture subsystem. Professionalism, for the professionals within the system, has meant job protection, and by its emphasis on value-free research it has also provided a haven from moral dilemmas.

Given the obstacles to internal change, I think that despite the talk of change that has gone on for decades these institutions will change slower than the events that surround them, in the absence of outside encouragement and pressure.

May I make these suggestions for action by your committee:

1. The Congress might well earmark any new funds for the experiment stations and extension, and put additional strings on the existing general Federal funding. Existing funds provide up to half or more of State and local extension budgets, and a smaller but significant share of experiment station budgets.

Funds might be earmarked for the following purposes:

- (a) Evaluating Federal programs for rural people. Much effort and dollars have been spent in evaluating commodity programs, but there is almost a taboo against looking critically at food programs, housing programs, urban renewal, and so on.

- (b) Delivering Federal programs to the small- and middle-sized cities of rural America. Extension could learn more by doing, and could feedback a mass of useful information about how Federal programs fit into rural America.

- (c) Creating special function agencies. Predominantly black colleges, and those in areas with large Mexican-American populations, could be given resources to develop expertise and authority on minority needs, and on the characteristics of programs that would adequately serve minorities. If past experience is any guide, research on minority problems will bring to light problems faced by all of the poor and aspiring peoples of the Nation.

Special function research groups can also provide a way around the existing balkanization of experiment station research. Protocol now requires researchers to clear with experiment station directors and usually to work out a cooperative project with them before doing any research in a State. This rule means in effect that one can do research only on the hand that feeds him.

- (d) Monitoring facilities for people and communities. Monitoring facilities at the land-grant schools—those facilities that record data on specific subjects at regular time intervals—are available for indicating trends in farm prices and other aspects of the commercial farm economy. These facilities could be used for other things in part—for keeping track of the number of inadequate houses, the distribution of housing program benefits, participation in school lunches, rural poverty, and so on. This suggestion makes light of statements that social and natural scientists engaged in research on agribusiness cannot easily change to other subjects. I think you will find on closer look that physical and natural scientists can switch fairly easily from their present research field to

In June 1968, the Office for Advancement of Public Negro Colleges was established by the National Association of State Universities and Land-Grant Colleges. The office, located in Atlanta, Georgia, serves to interpret and promote the mission of these colleges and universities to larger publics.

The Rural Community Assistance Consortium represents a further effort by the National Association to maximize the potential for service inherent in the black land-grant colleges. The Consortium was established in June, 1971, under a two-year grant of \$290,000 from the Office of Economic Opportunity to the National Association. The Consortium operates out of the Atlanta office of the Association. Its basic objective is to increase the demonstrable capability of the member schools to attract and maintain funded programs and qualified resource personnel as aids to upgrading human and community resources in rural areas serviced by the 1890 land-grant institutions.

Through the efforts of RCAC, Consortium schools are beginning to acquire a variety of rural service programs. Close to two million dollars worth of grants have been acquired or are in process as a result of the stimulation promoted during its first year of operation.

There yet remains the need for an acceleration of financial resources by USDA and other agencies in order for the 1890 schools to achieve their fullest potential.

The Future

The heroic accomplishments of the 1890 colleges cannot continue without significantly increased moral and financial commitments. The 1890 colleges have brought black and poor peoples from the point of gross deprivations to the threshold of a democracy. They stand on the brink of achievements but it

certain others. Some have already switched to environmental protection, and some of these were delighted to move from a nearly dry hole to one with lots of challenge.

2. Probably the structure of land grant advisory committees should be made more representative of the new subjects to be studied. If research is to be done for the cities and towns where most rural citizens now live, these communities should be represented on advisory committees. This would dispell the colonialist mentality and paternalistic approach, it would help assure continuity, and also help develop users and grass roots political support for the research program.

3. There should be more evidence of users, especially with respect to applied research. If researchers are obliged to cultivate actual users not only will findings be used but research institutions may become aware of, and perhaps morally concerned about, the question of equity in the distribution of research benefits.

4. Finally, I would urge your committee to take a continuing interest in the research and extension functions of the land grant colleges, for several reasons. As stated in a Des Moines Register editorial the main thrust of the report by Jim Hightower is sound, he has the basic facts, and the USDA and the land grant colleges have long been concerned about the situation he described, without being able to do much to remedy it.

Experience with the food program issue should indicate the kind of role this committee must play in order to achieve a remedy. It appears that the USDA is quite proud of its domestic food programs today, but it once spent months and even years trying to refute the justifications on which those expanded programs are now based. It was only because members of this Senate committee were as persistent in demanding reforms as the USDA was in resisting them that these programs now exist. This committee should now be prepared to persist until reforms occur in the distribution of benefits from experiment station research and extension services.

I must call to your attention that the plight of rural America and the failure of its institutions must to some extent be laid at the door of the Congress and is structured for dealing with rural needs. As you may know, the USDA has made several noble efforts in behalf of rural communities and poor people, one of which was the Farm Security Administration created in the 1930's. That agency was dismembered by the Congress during the early 1940's. In 1945, a group of first-rate social scientists in the USDA's Bureau of Agricultural Economics came up with a timely "conversion program for the cotton South," which would have moved toward diversification of agriculture, and toward implementing vocational programs and other measures to encourage the growth of jobs within the area. Members of certain congressional committees referred to this as a "socialistic scheme," and insisted that the BAE be broken, and it was. Subsequently Secretary Freeman was bluntly warned by the chairman of the House Appropriations Subcommittee on Agriculture not to become involved in social planning such as had occurred in the BAE. All this is a matter of record. That same committee has so closely overseen the hundreds of experiment station research projects that station directors can say, as of the Lord, "They have counted the hairs on my head." One can

understand the timidity of research administrators faced with the possibility of having to fire or otherwise penalize respected colleagues as a condition for keeping the Federal research money rolling in. Given these pressures upon the institutions, I wonder whether you can expect land-grant establishments to be responsive to your leadership until they know that your committee has a continuing interest in their situation.

In listening today, Mr. Chairman, to the differences in philosophy, it seems to me we heard one by one of the things that happened because of technology and of the institutions that brought the problems about, and we heard the other philosophy in which the emphasis is on the side of the technological revolution.

There really are no institutions devoted to that kind of view, not to breaking down the land-grant college research and extension system, but rather to showing continually what the inadequacies are, and working to get these things corrected, both through the Congress and in the colleges themselves, and so I would urge you as strongly as I can in my whole heart to help the colleges, to help the people that the colleges have not helped enough.

Senator STEVENSON. That is certainly our purpose, Dr. Hadwiger, for nobody has suggested we try to break apart or destroy the land-grant college system.

Our only interest is in assuring that public agencies and publicly supported activities benefit the public the way they are supposed to. There have been indications, which we will not now repeat, that in some cases public policies in rural America, including activities of land-grant colleges, in fact do not do that.

They sometimes benefit special interests, and they work against the general interests.

I expressed earlier in these hearings our concern about the continuing out migration and the dehumanization of rural areas, the growing concentrations of power at each step in the whole production of food, and our concern goes to the policies of the Government that are in part responsible for these developments. For those reasons we are conducting these hearings.

I am very grateful for your statement.

(The prepared statement of Dr. Hadwiger follows:)

Analysis of Research Projects of USDA and Agriculture Experiment Stations
for calendar 1970, categorized under HPA 801 (Housing)

by Don F. Ludwig, January 1972

Introduction

My objective is to classify USDA and CSRS research projects designated under "housing" into sub-categories based on their intended objectives or anticipated findings. A particular interest in doing this is to learn how findings might be useful or not useful in determining public policy for rural housing.

The information was gained from progress reports for calendar year 1970, with the project descriptions and publications listed therein, as furnished by the Department of Agriculture. These reports were uneven in structure. Inconsistencies between the more general project descriptions and particular results listed in progress reports and publications often required a judgment as to the real nature of the project. The effort was made to settle upon the major theme of ongoing research.

A special task force of CSRS, reporting in 1965, found that relatively little research was devoted to the social, economic, and human aspects of rural America. More recently, J. Patrick Madden expressed similar concern about lack of public policy research, in an article in the American Journal of Agricultural Economics (May, 1970) entitled "Social Change in Public Policy in Rural America: Data and Research Needs for the 1970's." Madden listed five major problems in rural America on which public policy research was needed. One of these five problems was "meeting the housing needs of rural families." The other four problems were "improving economic opportunities of rural people, improving rural community institutions and services, finding causes and cures for poverty, and isolating social and economic barriers to change."

For each of these problems several types of research are needed, Madden said. These types of research, as he lists them, provide one basis for classifying housing research projects. Madden's list includes the following: (1) determine the existing situation, including description of the target population; (2) analyze relevant forces impinging, and estimate causal relations; (3) study the effects of current intervention

programs; (4) evaluate potential innovations in intervention programs, using pilot studies; (5) pull together from all the studies a wide range of readily accessible information and knowledge so that policy makers from all levels can make informed decisions in program formulation. Since Madden also emphasized using techniques to make the knowledge accessible to the decision makers, this communications function is listed as the sixth type of research. He emphasized that many "elegant" reports had no real impact, because they were not in a form communicable to decision makers.

It was not possible to categorize all rural housing research projects under Madden's six headings. Many projects dealt with purely technical aspects of housing construction which, at best, would have only an indirect impact upon any of the categories mentioned above. For example, research on new techniques for joining joints might well reduce the cost or increase the durability of low-cost housing, but it did not seem reasonable to list this in one of the categories that Madden mentioned. Therefore, three additional categories were included: physical construction--technical aspects; physical challenges to housing (such as termites); and technical aspects of operating and maintaining houses.

This eight-part categorization will be entitled, "Types of Research." In subsequent sections this research will also be classified as to who is likely to use it, and then as to how immediately applicable it may be. Finally, the effort will be made to state the major finding of each research, and these will simply be listed in the order in which projects appeared. Publications will also be listed in the same order.

Types of Research

1. Determining Existing Situation Including Describe Target Population

Out of the total of 71 projects listed under RFA 001 (housing) for which some description was provided, twelve projects were placed in the category of describing the situation. However, out of a total of 48.3 man-years for all projects, only 6.6 man-years were involved here, and 3.7 of these were committed to one IRS project which

undertook to determine rural housing trends and prospects both with respect to new kinds of housing and characteristics of housing occupants.

Several kinds of situation research were differentiated, the major ones (three projects, including the ERS project, with 4.7 man-years) being descriptions of the kinds and quality of housing used by occupants categorized by income or age or ethnic background or other social or demographic characteristics. The second largest kind of research consisted of behavior studies in which resident behavior patterns were observed in an effort to discover housing designs which were most convenient (four projects, .3 man-years). Other kinds of research explored consumers' desires or demand for housing (two projects, .6 man-years), and development of concepts as to understanding the situation or character of recipients (one project, .3 man-years).

Comments: Most of these projects were quite specific as to subject, dealing with fragments of the total situation. For example, the behavior studies dealt mainly with behavior of elderly people within a particular design of kitchen, or home. There was no counterpart study of behavior patterns of families, or of the many behavior problems involved in multi-family housing. Most of the situation studies were region-specific.

The ERS project on rural trends produced at least two publications with comprehensive findings. However these are based upon secondary data mainly, in the case of the generalized rural housing trends and prospects.

2. Analyze Relevant Forces Impinging, Estimating Causal Relations

Eleven projects and four man-years were placed under this heading. These were differentiated as follows:

Community economic resources available to be devoted to housing (one project, .3 man-years)

Relationship between housing, other socio-economic characteristics, and fertility rate (one project, 1 man-year)

Effect of housing on other life aspects such as difficulty of or preference for tasks and eating habits (three projects, .8 man-years)

Effective legal constraints on use of new technology and other factors affecting supply of housing (two projects, 1 man-year)

Relationship of socio-economic and demographic characteristics of occupants--
to demand for housing (one project, .0 man-years)
and credit-behavior, housing-meanings characteristics to desire for housing
 (one project, .0 man-years)
and credit-behavior, house-meanings characteristics to quality of housing
 (one project, .3 man-years)
to demand for housing (one project, .0 man-years)
to maintenance of housing (one project, .2 man-years)
to housing attitudes and use patterns (one project, .2 man-years)
to work habits and patterns (two projects, .6 man-years)

Comments: The amount of research into causal relationships, using housing either as independent or dependent variable, is obviously small. Most studies involve a small universe of residents, located in one community or small area. Most do include some low-income housing occupants.

As to whether the findings are policy relevant, and whether their authors were concerned about this matter, some doubts and reservations are expressed in a later section. Presumably some of these projects address the question, "who is in bad housing, and why?" But the studies do not seem structured to say much directly about the dynamics of improvements in housing. Instead, the research usually explored socio-economic relationships, which are presumably conservative (reinforce status quo) rather than dynamic in their effects.

3. Studying the Effects of Current Intervention Programs

Only one project seemed appropriate for inclusion in this category, despite efforts to be inclusive. This one was included because one aim (out of several) was to compare satisfactions of people living in public housing projects with satisfactions of those living in trailer homes. There were no man-years committed to this project in 1970.

Obviously there is much experience to be studied with respect to a number of federal and state programs as well as housing regulations, catalytic efforts, and other types of federal, state, or local initiatives to improve housing, especially during the last four years. The lack of research in this area is not explained by lack of methodology or interest or activity.

4. Evaluate Potential Innovations in Intervention Programs, Using Pilot Studies

There are four projects which seem to qualify here in the sense that some experimentation had been undertaken, using human subjects in a new situation. A total of .7

man-years were involved, and the activities included independent housing for elderly persons, acceptability of new housing designs for low-income people, promoting self-help organizations, and an anticipated experimentation in improving rural low-income housing.

A good deal of experimental or pilot program research has occurred in other areas of behavior such as nutrition education, and this kind of research is common procedure in the natural sciences. Is the lack of this kind of research by USDA and CSRS in rural housing due to lack of interest on the part of researchers, or lack of qualified researchers to undertake projects of this nature, lack of resources, or simply lack of priority for rural social phenomena?

5. Synthesis of Findings

Two projects seemed primarily interested in bringing findings together either for others or for the use of scholars at the institution. The first assembled materials on house designs into a handbook, and the second assembled bibliography to guide a research program. A total of two projects and .6 man-years were involved here.

There is very little information available on housing needs and housing programs for use by community non-profit organizations. The area of housing is one in which the average community leader and even housing planners act without information, in the absence of any efforts to synthesize findings. Rural housing situations, for example, are particularly unknown from one region or one subject to another.

6. Making Knowledge Accessible for Policy Makers at All Levels

Two projects seemed to fit this category, with a total of .5 man-years. One project was to prepare a handbook of rules on migrant housing; another was to instruct builders (not policy makers) on use of surface bonding of concrete block. Conceivably the HRS publication on housing trends, indicated earlier under No. 1 might also have been classified in this category.

7. Technical Aspects of Physical Construction of Houses

There were 15 projects in this category, but these included 34 man-years (60%) of all housing research man-years. These projects were undertaken primarily by the Forest Service or Agricultural Engineering Departments. Most of the experiment

station projects classified here were labeled as efforts to reduce costs of low-income housing; and this designation would certainly seem accurate, for example, for research on bonded concrete block walls (eliminating the need for mortar). However the relationship in terms of output was not always clear, as in the case of a project, classified under (9) below, testing the effects of foot traffic wear upon wood floor surfaces. The title of this project on floor surfaces was "physical, social, and economic aspects of functional housing for low-income families."

While two or more projects dealt with concrete building materials, most projects endeavored to improve the use of wood, and often were specifically aimed at increasing the use of wood in low-income or other housing. This may be understandable in view of the input of Forest Service and forestry professionals under this category, but the fact deserves comment. Materials other than wood may be less scarce, or in any case deserve more proportionate treatment in federal research.

8. Termites

Six projects, with a total of 12 man-years, were devoted to studying the behavior of termites or bacteria or other enemies of wood. This accounted for 16% of total man-years in rural housing research, about equal to all man-years under the Midden categories.

9. Operation of Houses and Utilities

Three projects, with a total of 1.2 man-years, were categorized as designed to provide maintenance of houses--the proper use of electricity, unkeep practices of elderly people, and wearability of wood floor surfaces.

For Whom Was Research Intended?

An effort was made to list the parties or agencies for whom research might be intended, although the progress reports themselves did not usually specify a target group.

As indicated, most research was concerned with technical aspects of construction or maintenance of property, and therefore a large number of the projects, encompassing the bulk of total

man-years, were listed as being intended for those who construct or maintain houses-- architects, builders, service industries. One may postulate that economies achieved in the construction of houses will be passed along to the consumer, though that proposition was not tested or even touched upon in any rural housing research project. Furthermore, consumer interests were rarely mentioned, and some research seemed intended as a direct service to producers. For example, one research project was producing market surveys and undertaking law searches designed to provide information to facilitate the marketing of lumber. There was no project which would have measured the efficiency of the lumbering industry, or its profit-taking. There was no look at the institutions involved in producing or selling housing. Yet there is need for this kind of analysis, because a long chain of private individuals and firms now provide specialized inputs in the process of providing federally subsidized housing to consumers, and the value of these services is nowhere examined in this research. Instead, the spirit and intent of much research is industry-oriented, as indicated in the description of one very substantial project, "Use of automated and more complex sawmill machinery is increasing demand for operations research to provide information for decision making in forest product industries. Benefits of operation research analysis are useful to an existing plant, and are extremely valuable in evaluating investment in both horizontal and vertical integration and in new plant facilities."

While most research was for the initial benefit of the building industry, the second largest use category contained research for which no user was apparent. It was difficult to know, for example, who would be the user or recipient of new information about relationships between socio-economic characteristics of residents and the quality of their housing. Farmers Home Administration might incorporate such information in its proposals for program changes, and individuals or teams within USDA research agencies could pick up this information and assure that it does become a basis for program suggestions. However, only a part of these findings would have clear program relevance. Many potential research questions designed to find

causes which are subject to administrative control would be related to existing programs but many of these have to do with the method of administering programs, which has yet to be looked at in any single project. Another approach would be to seek socio-economic characteristic and demographic relationships with program outputs. This would tend to indicate shortcomings in the program in addition to those in administration.

In summary, most research is not intended for the benefit of consumers directly, or for policy makers. It is pointed toward use by the housing industry, or to be incorporated into a body of sociological knowledge.

Usability of Research

An effort was made to put research into three categories--that which was immediately usable or practical; that which was an increment or addition to a body of knowledge which might then be useful as a whole; and research which was purely theoretical or methodological, not intended at all for practical use. This required very large judgments, but perhaps the evaluation supports a few statements.

Much of the research dealing with housing construction or maintenance fell into the category of direct and practical. A total of 15 projects dealing with housing construction and maintenance were listed as practical, and another four non-construction, non-maintenance projects were listed in this category. The latter four included a survey of low-income housing residents, research on how much repair is needed in rural low-income homes, a model for self-help housing, and the development of a bibliography for use by scholars at one institution.

On the other extreme--theoretical and methodological, five projects were listed. The other projects fell in between these, with no apparent immediate or practical use, although perhaps many of these findings could be incorporated into program design or administration if there exists a good chain of communication and synthesis of information between researchers and program administrators.

Final Comments

It would appear that not much of the present research on rural housing is intended to provide findings useful for the development of public policy in rural America, as solicited in the paper by J. Patrick Madden. Some of the needs Madden mentions, such as analysis of existing policy and testing innovations, are entirely neglected.

Types of Research under RPA "Rural Housing,"
by CSRS and USDA, calendar 1970*

	<u>No. of Projects</u>	<u>Man-Years</u>
<u>Madden Public Policy Categories</u>		
1. Situation	12	6.6
2. Causes	15	4.4
3. Current Programs	1	.0
4. Innovations	4	.7
5. Synthesis of findings	2	.6
6. Communication to decision makers	2	.5
Subtotal	36	12.8
<u>Technical Findings</u>		
7. Construction	15	39.6
8. Parasites	6	12.0
9. Maintenance	3	1.2
Subtotal	24	52.8

*Derived from information in annual progress reports

Specific Findings, 1970

Below is a list of major findings of rural housing research projects. For each project reporting findings, an effort was made to extract that finding which was most emphasized. These appear in abbreviated form below, listed in the order in which projects appeared.

Better house designs
 Amount of electricity used in farm homes
 Relationship between SES, credits, demographic, ownership, and quality of rural housing
 Termites behavior, migration
 Ways to reduce housing construction costs
 Little mortgage credit is available in rural Arkansas
 Substandard houses are inhabited by old or disabled or women; and mobile homes are a major supplier of low-income housing
 Strength of glue
 Durability of wood finishes
 Fire resistant material was uneconomical
 Effectiveness of wood preservatives
 Engineering values for strength of wood paneling
 Need adequate anchorage for wood beams
 Sandwich panels perform well
 Financial management practices are related to housing conditions
 Technique of building concrete blocks without mortar
 A method of assessing consumer preferences for housing
 Physical aspects of housing needs for elderly
 Floor surface wear is reduced after a time
 Elderly did not prefer public housing over other forms, and use of public facilities was determined by proximity
 Difficulty of housekeeping tasks is related to housing
 Employed homemakers have less time for housekeeping tasks than non-employed homemakers
 There are differences between rural and urban in completion of housing tasks
 Sound does not unduly penetrate wood frame walls
 Low cost home design
 Use of new nails, now glue and preventing decay of wood
 Operations research can help forest products industry
 Behavior of termites
 Bacteria deterioration of wood
 Conditions and remedies for problems of low-income housing
 Housing status is related to SES, housing meanings, social participation
 Urban-rural differences are related to fertility rates
 Size of families and income of rural families
 How much does a home cost the community, and how much does the community receive from taxes (community cost for residence versus community income from taxes)
 Heat and radiation varies specifically with size and position of wall openings

Senator STEVENSON. We have, Dr. Hadwiger, as you know, received many critical statements and many very defensive statements, about the land-grant college complex.

Your statement is balanced, and is constructive. You have given us a lot of very good suggestions as to how to proceed from here, and I am especially grateful for those suggestions.

We will study them and hopefully move forward in a positive and constructive way.

We have run out of time today. The record will remain open for 2 weeks, and if there are any persons who would like to make further statements, we will be glad to receive them.

At this point I order printed all statements of those unable to attend and other pertinent material submitted for the record.

(The material referred to follows:)

Institutions of Higher Education
Undergraduate Enrollment by Ethnic Group
Fall, 1970

Name of Institution	Total Enrollment	Negro	Other Minorities
ALABAMA			
Alabama A & M College	1,930	1,890	40
Auburn University			
Auburn	11,484	71	63
School of Veterinary Medicine	399	0	1
Montgomery	275	0	0
ALASKA			
University of Alaska	No data available		
ARIZONA			
University of Arizona	15,635	220	1,426
ARKANSAS			
Arkansas A, M & N College	3,013	2,955	0
University of Arkansas	9,653	111	581
Little Rock	2,338	206	15
Medical Center	344	9	4
CALIFORNIA			
University of California			
Berkeley	17,508	780	2,700
Davis	9,218	161	688
Irvine	4,551	108	291
Los Angeles	16,620	635	2,126
Riverside	4,304	178	308
San Diego	4,025	165	352
Santa Barbara	2,107	25	120
San Francisco	369	20	49
Santa Cruz	3,255	64	271
COLORADO			
Colorado State University	13,302	187	427

2824

Name of Institution	Total Enrollment	Negro	Other Minorities
CONNECTICUT			
University of Connecticut			
Storrs	7,070	269	120
Hartford	293	8	11
Southeastern	430	4	2
Stamford	386	1	1
Torrington	285	0	0
Waterbury	228	1	7
DELAWARE			
University of Delaware	8,701	227	47
Delaware State College	No data available		
DISTRICT OF COLUMBIA			
Washington Technical Institute	No data available		
Federal City College	No data available		
FLORIDA			
Florida A & M University	3,906	3,841	7
University of Florida	16,075	236	984
GEORGIA			
Ft. Valley State College	2,175	2,174	0
University of Georgia	13,440	123	118
HAWAII			
University of Hawaii	No data available		
IDAH0			
University of Idaho	5,369	19	100
ILLINOIS			
University of Illinois			
Urbana-Champaign	23,787	944	476
Chicago Circle	15,490	1,066	527
Medical Park	1,026	51	32

<u>Name of Institution</u>	<u>Total Enrollment</u>	<u>Negro</u>	<u>Other Minorities</u>
INDIANA			
Purdue University	19,191	320	124
Lafayette	1,894	89	55
Calumet	601	3	2
North Central			
IOWA			
Iowa State University of Science and Tech.	16,304	124	68
KANSAS			
Kansas State University	11,100	149	65
KENTUCKY			
Kentucky State College	1,103	913	1
University of Kentucky			
Lexington	13,210*	136	374
Southern Community College	588	16	0
Ashland Community College	912	16	0
Community College System	6,107	344	2
LOUISIANA			
Louisiana State University and A & M	13,553	387	170
Baton Rouge	842	63	6
Alexandria	336	5	0
Eunice	7,767	732	122
New Orleans	893	28	25
Shreveport	553	5	2
Medical Center			
Southern University			

*NO data available

Other
Minorities

Negro

Total
EnrollmentName of Institution

MAINE

University of Maine

Orono

Augusta

Bangor

Farmington

Ft. Kent

Machias

Portland-Gorham

Presque Isle

MARYLAND

University of Maryland

College Park

Baltimore City

Baltimore County

Eastern Shore

MASSACHUSETTS

Massachusetts Institute of Technology

University of Massachusetts

Amherst

Boston

MICHIGAN

Michigan State University

MINNESOTA

University of Minnesota

Minneapolis-St. Paul

Crookston

Duluth

Morris

38

0

3

2

2

2

40

0

834

14

42

0

149

136

56

329

821

2

30

76

17

0

2

0

0

1

9

1

862

23

153

542

124

629

271

1,424

562

3

14

31

7,082

380

529

1,271

379

555

3,094

647

25,037

801

2,795

646

4,047

15,733

4,155

29,251

27,465

388

4,327

1,544

<u>Name of Institution</u>	<u>Total Enrollment</u>	<u>Negro</u>	<u>Other Minorities</u>
MISSISSIPPI			
Alcorn A & M College	2,474	2,472	0
Mississippi State University	7,115	178	77
MISSOURI			
Lincoln University	2,013	909	53
University of Missouri			
Columbia	15,780	356	417
Kansas City	4,277	245	104
Rolla	4,389	57	54
St. Louis	5,989	370	93
MONTANA			
Montana State University	No data available		
NEBRASKA			
University of Nebraska			
Omaha	5,496	128	67
Medical Center	353	10	0
NEVADA			
University of Nevada			
Las Vegas	3,872	120	182
Reno	5,750	47	72
NEW HAMPSHIRE			
University of New Hampshire	No data available		
NEW JERSEY			
Rutgers University	No data available		
NEW MEXICO			
New Mexico State University			
Las Cruces	6,173	95	1,145
Alamogordo	218	5	32
Carlsbad	187	1	20
Farmington	251	0	23
Grants	44	1	15

Other
Minorities

Negro

Total
Enrollment

Name of Institution

NEW YORK

Cornell University

10,468

307

383

NORTH CAROLINA

North Carolina A & T State University

3,354

3,338

2

North Carolina State University

9,710

141

54

Raleigh

NORTH DAKOTA

North Dakota State University

5,939

3

19

Fargo

Bottineau

297

0

12

OHIO

Ohio State University

32,691

917

275

Columbus

Lima

1,066

16

9

Mansfield

922

11

2

Marion

580

7

2

Newark

703

8

0

OKLAHOMA

Langston University

1,109

1,034

0

Oklahoma State University

14,785

282

428

Stillwater

2,564

295

347

School of Technical Training

348

97

64

OREGON

Oregon State University

12,263

79

371

Name of Institution	Total Enrollment	Negro	Other Minorities
PENNSYLVANIA			
Pennsylvania State University	20,585	618	759
University Park	144	0	1
Allentown Campus	1,236	3	4
Altoona Campus	822	6	32
Beaver Campus	1,180	11	44
Behrend Campus	639	9	23
Berk Campus	1,157	30	29
Capitol Campus	739	38	42
Delaware Campus	465	1	15
DuBois Campus	711	15	0
Fayette Campus	636	0	13
Hazleton Campus	916	8	30
McKeesport Campus	585	4	28
Mont Alto Campus	674	9	30
New Kensington	1,434	77	72
Ogontz Campus	559	1	17
Scranton Campus	663	3	24
Schuylkill Campus	432	10	25
Shenango Valley Campus	404	3	29
York Campus	297	2	8
Wilkes-Barre Campus	211	9	2
Medical Center Hershey			
PUERTO RICO			
University of Puerto Rico	No data available		
RHODE ISLAND			
University of Rhode Island	8,118	71	124
SOUTH CAROLINA			
Clemson University	6,068	58	424
Greenville	163	12	0
Spartan	134	4	0
South Carolina State College	1,710	1,703	0

<u>Name of Institution</u>	<u>Total Enrollment</u>	<u>Minorities</u>	<u>Other</u>
SOUTH DAKOTA			
Dakota State College	1,200	0	3
TENNESSEE			
Tennessee State University	3,785	3,774	10
University of Tennessee			
Knoxville	17,175	325	68
Chattanooga	3,175	250	7
Martin	4,118	206	0
Nashville	465	32	0
TEXAS			
Prairie View A & M College	3,334	3,313	10
Texas A & M University	10,236	77	407
UTAH			
Utah State University	6,839	32	154
VERMONT			
University of Vermont and State			
Agricultural College	5,861	22	8
VIRGINIA			
Virginia Polytechnic Institute	10,458	76	47
Virginia State College	2,189	2,158	1
WASHINGTON			
Washington State University	12,512	115	247
WEST VIRGINIA			
West Virginia University	11,281	111	53

Name of Institution	Total Enrollment	Black	Other Minorities
WISCONSIN			
University of Wisconsin			
Madison	22,434	657	184
Milwaukee	12,185	434	104
Green Bay	3,389	118	12
Parkside	2,625	109	33
University of Wisconsin Center Systems			
Baraboo-Sauk County	237	0	0
Marathon County	630	0	3
Marshfield-Wood County	259	0	1
Rock County	422	3	2
Sheboygan County	429	0	0
Washington County	384	0	0
Waukesha County	976	0	6
WYOMING			
University of Wyoming	6,707	52	81

FISCAL YEAR - 1971

2833

Educational Opportunity Grants Program

College Work-Study Program

	ALL STUDENTS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS	ALL STUDENTS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS
ALABAMA						
ALABAMA A & M COLLEGE	286	285	-0-	280	280	-0-
ALABAMA UNIVERSITY	461	26	4	187	19	-0-
ALASKA						
UNIVERSITY OF ALASKA	115	3	-0-	26	1	-0-
ARIZONA						
UNIVERSITY OF ARIZONA	400	44	99	580	55	214
ARKANSAS						
AS. METH. & NORMAL COLLEGE	811	811	-0-	633	633	-0-
UNIVERSITY OF ARKANSAS	791	103	1	229		-0-
CALIFORNIA						
UNIVERSITY OF CALIF. BERKELEY	1,194	141	81	1,180	422	185
COLORADO						
COLORADO ST. UNIVERSITY	969	76	130	645	45	84
CONNECTICUT						
UNIVERSITY OF CONNECTICUT	539	129	54	533	230	10
DELAWARE						
SALISBURY ST. COLLEGE	435	436	1	490	476	2
UNIVERSITY OF DELAWARE	281	68	4	170	96	4

FISCAL YEAR - 1971

College Work-Study Program

Educational Opportunity Grants Program

	ALL STUDENTS CNS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS	ALL STUDENTS EOC	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS
<u>DISTRICT OF COLUMBIA</u>						
FEDERAL CITY COLLEGE	361	361	-0-	638	638	-0-
WASHINGTON TECH INST	362	358	1	231	33	1
<u>FLORIDA</u>						
FLORIDA AG. & MECH. UNIV.	479	479	-0-	700	698	1
UNIVERSITY OF FLORIDA	891	845	13	465	168	4
<u>GEORGIA</u>						
PORK VALLEY ST. COLLEGE	588	588	-0-	256	187	-0-
UNIVERSITY OF GEORGIA	819	88	5	597	88	1
<u>HAWAII</u>						
UNIVERSITY OF HAWAII	529	**	**	372	**	**
<u>IDaho</u>						
UNIVERSITY OF IDAHO	257	4	1	159	7	2
<u>ILLINOIS</u>						
UNIVERSITY OF ILLINOIS	709	345	19	1,238	623	37
<u>INDIANA</u>						
PURDUE UNIVERSITY	896	109	4	648	155	6
<u>IOA</u>						
IOA ST. UNIVERSITY	893	27	2	1,251	30	3

2834

College Work-Study Program

Educational Opportunity Grants Program

	ALL STUDENTS CSS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS	ALL STUDENTS EOG	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS
KANSAS						
KANSAS STATE UNIVERSITY	813	27	2	889	70	1
<u>KENTUCKY</u>						
KENTUCKY ST. COLLEGE	320	320	-0-	148	140	-0-
UNIVERSITY OF KENTUCKY	778	94	-0-	504	33	-0-
<u>LOUISIANA</u>						
LOUISIANA STATE UNIV., BATON ROUGE	504	124	16	265	95	9
SOUTHERN UNIVERSITY	1,848	1,848	-0-	972	859	-0-
<u>MAINE</u>						
UNIVERSITY OF MAINE, PORTLAND	137	-0-	-0-	19	-0-	-0-
<u>MARYLAND</u>						
UNIVERSITY OF MARYLAND ST. COL.	269	269	-0-	102	92	-0-
PRINCESS ANNE						
UNIVERSITY OF MARYLAND, COLLEGE PARK	859	258	14	660	283	10
<u>MASSACHUSETTS</u>						
MASSACHUSETTS INST. OF TECH.	650	18	8	171	32	7
UNIVERSITY OF MASSACHUSETTS	850	45	14	826	383	22
<u>MICHIGAN</u>						
MICHIGAN ST. UNIVERSITY	2,285	593	9	2,988	512	9
<u>MINNESOTA</u>						
UNIVERSITY OF MINNESOTA	978	50	15	1,264	106	8

FISCAL YEAR - 1971

College Work-Study ProgramEducational Opportunity Grants Program

	ALL STUDENTS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS	ALL STUDENTS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS
MISSISSIPPI	717	717	-0-	457	457	-0-
ALCORN A & M COLLEGE	1,306	120	-0-	431	75	-0-
MISSISSIPPI ST. UNIVERSITY						
MISSOURI						
LINCOLN UNIVERSITY	393	313	-0-	340	290	-0-
UNIVERSITY OF MISSOURI	1,893	184	-0-	1,368	228	-0-
MONTANA						
MONTANA ST. UNIVERSITY	1,064	1	2	414	1	-0-
NEBRASKA						
UNIVERSITY OF NEBRASKA	844	81	22	608	421	23

FISCAL YEAR 1971

COLLEGE WORK-STUDY PROGRAM

EDUCATIONAL OPPORTUNITY GRANTS PROGRAM

	ALL STUDENTS CWS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS	EDUCATIONAL OPPORTUNITY GRANTS PROGRAM		
				ALL STUDENTS EOG	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS
<u>NEVADA</u>						
UNIVERSITY OF NEVADO RENO 89501	490	26	8	147	17	7
<u>NEW HAMPSHIRE</u>						
UNIV. OF NEW HAMPSHIRE	621	37	5	362	37	5
<u>NEW JERSEY</u>						
RUTGERS UNIV., NEW BRUNSWICK	1,282	461	75	2,006	1,108	160
<u>NEW MEXICO</u>						
NEW MEXICO STATE UNIV. LAS CRUCES	522	30	225	221	14	126
<u>NEW YORK</u>						
CORNELL UNIVERSITY, ITHACA	173	95	21	134	92	15
<u>NORTH CAROLINA</u>						
N.C. A & T COLLEGE, GREENSBORO	1,017	1,012	-0-	548	548	-0-
<u>NORTH CAROLINA STATE UNIVERSITY</u>						
RALEIGH 27607	578	31	3	370	35	1
<u>NORTH DAKOTA</u>						
NORTH DAKOTA STATE UNIVERSITY	506	-0-	-0-	457	-0-	-0-
<u>OHIO</u>						
OHIO STATE UNIV., COLUMBUS	1,804	203	8	1,379	215	6

FISCAL YEAR 1971

	COLLEGE WORK-STUDY PROGRAM			EDUCATIONAL OPPORTUNITY GRANTS PROGRAM			
	ALL STUDENTS CMS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS	ALL STUDENTS EOG	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS	
OKLAHOMA							
LANGSTON UNIV., LANGSTON	348	343	-0-	363	363	-0-	
OKLAHOMA STATE UNIV., STILLWATER	801	47	2	690	69	2	
OREGON							
OREGON STATE UNIV., CORVALLIS	973	17	8	438	46	30	
PENNSYLVANIA							
PENN. STATE UNIV., UNIV. PARK	379	64	-0-	765	392	9	
PUERTO RICO							
UNIV. OF PUERTO RICO	1,761	-0-	1,761	2,806	-0-	2,806	

FISCAL YEAR 1971

	COLLEGE WORK-STUDY PROGRAM			EDUCATIONAL OPPORTUNITY GRANTS PROGRAM		
	ALL STUDENTS CNS	BLACK STUDENTS ONLY	SPANISH SURNAME STUDENTS	ALL STUDENTS EOG	BLACK STUDENTS ONLY	SPANISH SURNAME STUDENTS
RHODE ISLAND UNIVERSITY OF RHODE ISLAND	181	42	-0-	489	56	1
SOUTH CAROLINA CLEMSON UNIV., CLEMSON	NOT IN COLLEGE WORK-STUDY PROGRAM			17	3	14
SOUTH CAROLINA STATE COL.	240	240	-0-	351	351	-0-
SOUTH DAKOTA SOUTH DAKOTA STATE UNIV.	478	-0-	-0-	199	-0-	-0-
TENNESSEE TENN. STATE UNIV., NASHVILLE	913	912	-0-	643	643	-0-
UNIVERSITY OF TENN. KNOXVILLE	631	103	-0-	552	95	-0-
TEXAS PRAIRIE VIEW A & M COLLEGE	874	862	12	522	512	10
TEXAS TEXAS A & M UNIV. COLLEGE STATION	196	16	29	264	16	56
UTAH UTAH STATE UNIVERSITY	427	7	3	689	9	4

FISCAL YEAR 1971

COLLEGE WORK-STUDY PROGRAM

EDUCATIONAL OPPORTUNITY GRANTS PROGRAM

	ALL STUDENTS CNS	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS	ALL STUDENTS EOG	BLACK STUDENTS ONLY	SPANISH SUR-NAME STUDENTS
<u>VERMONT</u>						
UNIV. OF VERMONT BURLINGTON 05401	347	5	1	310	4	2
<u>VIRGINIA</u>						
VA. POLYTECHNIC INSTITUTE BLACKSBURG 24061	515	22	3	376	32	2
VIRGINIA STATE COLLEGE PETERSBURG 23103	506	506	0	410	410	-0-
<u>WASHINGTON</u>						
WASHINGTON STATE UNIV. PULLMAN 99163	408	19	21	327	63	50
<u>WEST VIRGINIA</u>						
WEST VA. UNIV. MORGANTOWN 26506	1,198	24	0	439	28	-0-
<u>WISCONSIN</u>						
UNIV. OF WISCONSIN MADISON 53706	1,210	197	10	1,410	286	10
<u>WYOMING</u>						
UNIV. OF WYOMING LARAMIE 82070	776	21	32	479	29	46
TOTALS	49,754	15,030	2,699	41,099	14,663	3,805

** DATA NOT YET AVAILABLE

Arrowhead Mills

BOX 898 • HEREFORD, TEXAS 79045 • (806) 364-0730

June 23, 1972

Mr. Boren Chertkov
Counsel to the Subcommittee
Room 201, Senate Annex
Washington, D. C. 20510

Dear Mr. Chertkov:

Please insert the following statement into the record on your hearings on land grant colleges:

My name is Frank Ford and I am President of Deaf Smith Organic Farms, Inc. and Arrowhead Mills, Inc. of Hereford, Texas, two companies with the function of obtaining and merchandising organically grown and other whole, unprocessed natural foods. As an individual I farm 1,800 acres of dryland wheatland in Deaf Smith County, Texas. My son and I do our own tractor work. I am a 1955 graduate of Texas A & M University in agronomy and have served on various committees and in several positions of leadership in the agricultural community.

While I have a high regard for many personal friends who are serving in positions of power in several land grant colleges, extension services, and experiment stations, I feel that much more thrust must be given to the sociological aspects of agriculture. The short term gains in gross farm production which might be obtained with the use of massive mechanization, agricultural chemicals, and concentration of power generally will be more than offset by the costs of problems of crowding in the big cities, loss of human dignity, possible reductions in the quality of food, increased medical costs from a combination of the previous factors and a deterioration in general of the American Dream. Hundreds of thousands of Americans are crying out for leadership and responsiveness to the ideals of Jeffersonian America.

Our goal must be to retain the great aspects of our heritage while letting the outmoded decaying structures which are no longer important be replaced by a renewal of purpose. This renewal is represented today in America by millions of people of all ages who want more attention given to the quality of life and one of the most important aspects of this is the encouragement of the trend back toward the rural areas, toward organic farming, toward improving our environment, toward relating better to each other, and the reattainment of our national purpose through the reattainment of our individual dreams and aspirations.

Sincerely, NATURAL AND ORGANIC FOODS FROM DEAF SMITH COUNTY

Frank Ford

Frank Ford



ARROWHEAD MILLS, INC.

Stone Ground, Whole Grain Products from Deaf Smith County - Featuring Organically Grown Grains

BOX 866

HEREFORD, TEXAS 79046

1972

Dear Friends:

You will recognize that many new talents have been infused into this new catalog of good foods. It all begins with the farmer who loves the soil and has a commitment to improve it. After over two decades of "Modern technology", the American farmer is re-learning the joys of feeling and smelling life in his earth. Composts, trace mineral and humic acid materials are being added to many thousands of acres now, and with the resulting increases in humus levels, bacterial action and earthworm populations, farmers are finding better moisture utilization and stronger plants which are more resistant to disease and insect attack. Beneficial insects and birds are again finding their way back into the fields, and the best talents in agriculture are searching for ways to utilize the forces of nature, rather than for new ways to destroy them.

Consumers are learning that over-processing of food has been robbing them of their food dollar, and that the approximately 2500 coloring agents, preservatives, emulsifiers, bleaching agents, anti-oxidants, etc. are quite often not so good for the life of the eater as they are for the shelf life and appearance of the eaten. There is a new interest in eating "Low on the food chain" - grains, beans, seeds - vegetables grown fresh in home gardens, so that the accumulated poisons present in our environment are reduced in our daily intake of food. New books on natural foods cookery and balanced protein through combinations of grains and beans are opening up new vistas for good health on small budgets. You might say that a fresh wind is blowing in the food business, and that a lot of nice people are feeling better than they have ever felt in their lives.

There are some good new names on this price list: Quahon, Pure and Simple, Chico San and others are working together to bring you some good new foods which we think you will enjoy: buckwheat spaghetti, flat whole wheat noodles, cashews roasted with tamari, bulghur, rice cream, corn flour, green split peas, lentils, pearled barley, short grain rice, rice cakes, nut tea, apple butter and olive oil; also other products for natural living: Corona hand grinding mills, sesame shampoo and sesame lotion. The new, dry radiant heat method we use to produce our grain and bean flakes is really gaining enthusiasts as good cooks find that they can prepare delicious, high protein dishes from our soy and pinto flakes in less than an hour. The wheat, rye, oat and rice flakes are the basis of many good home-made granoles, using just the right touch of sunflower seeds, sesame seeds, nuts and raisins. The flakes are really good in cereals and other main dishes, breads and cookies.

Even before the food revolution began in earnest, mothers found that once their families had tasted whole wheat rolls made from fresh stone ground flour, refined white bread had no place in their homes. They are now realizing that refined oils are no better than refined flour. The solvent extraction of oils, the high temperature deodorizing, the use of bleaches and preservatives do nothing to promote health and vitality. Refined salt is now being replaced in many homes with unrefined sea salt. Families are learning the joys of pure peanut butter - no hydrogenation, no dextrose, no shortening. The plant at Fortalea has been newly renovated, and the people there are ready to produce the old-style best peanut butter ever - quality guaranteed. Refined sugar is being replaced in natural food homes with delicious dried fruits and other natural sweeteners as people's taste buds are once again becoming attuned to the natural sweetness of many foods. Our purpose is, with you, to build a good bridge toward a better way. Let Peace begin with us.

*from all the people at
Arrowhead Mills*

Personally grown on our own farms, the finest shipped from Deaf Smith County - cleaned and ready for use in your bakery kitchen; organically grown wheat, rye, corn, soybeans, millet.

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

DEVILLE S. BENTLEY, DEAN

URBANA, ILLINOIS 61801

July 24, 1972

The Honorable Adlai E. Stevenson, III
Chairman
Subcommittee on Migratory Labor
Room 456, Old Senate Office Building
Washington, D. C. 20510

Dear Senator Stevenson:

Your kind letter of July 7 reflected a thoughtfulness that came through to me as I listened to and participated in the hearings of the Subcommittee on Migratory Labor that you conducted on June 20. As you might expect, those of us that are immersed in the extension, research, and teaching programs of the College of Agriculture appreciated the opportunity to speak in support of these programs and to answer the flimsy allegations of failure of the great "land-grant universities" of this country made in Hard Tomatoes, Hard Times.

If one strips away some of the rhetoric frequently used in Hard Tomatoes, Hard Times, the report presents justification for greatly expanded educational programs focused on the problems of rural America, i.e., the people living outside standard metropolitan areas. Besides income disparity in comparison to urban areas and lack of job opportunities, there are serious matters of inequities in educational opportunities, deficiencies in public services including health services, and the need for improvements in institutional arrangements for all levels of governmental services. Agriculture is still the leading enterprise in rural America and we cannot separate social-oriented educational programs from the need to maintain a viable strong agricultural economy including the research educational effort that is so much a part of modern agriculture irrespective of the size of the farm enterprise. The Colleges of Agriculture through the State Agricultural Experiment Stations and the Cooperative Extension Service in cooperation with the USDA have been requesting funds to support a sizeable effort in a whole array of educational activities aimed at human resources and community development. Unfortunately many of these objectives got mixed into action-oriented aspects of "rural development programs" and the more political connotations of this latter program. Perhaps an outgrowth of the hearings you have held will be that a new force can be mobilized to support work that will fail, for the want of a better name, under the general heading of rural development.

In our College we have used the "seed money" provided through federal sources for rural development (Hatch and Smith-Lever Acts) to develop a planning capability for the College and to implement programs as those

The Honorable Adlai E. Stevenson - 2

July 24, 1972

outlined in the May 17, 1972 Extension Council Report by Director J. B. Clear which I sent you on June 2, 1972. We have assigned one of our agricultural sociologists, Professor H. J. Schweitzer, the dual responsibility of assistant director of Cooperative Extension Service and Illinois Agricultural Experiment Station to coordinate and plan programs in community development and special educational efforts for rural programs in the socio-economic areas.

I want to reiterate the invitation that I extended to you via John Taylor and Basil Condon to visit the campus anytime that you are in Illinois. We would be honored to have you visit with us for whatever time you have, but we would hope that you could be with us long enough to tour some of our facilities and introduce you to some of our staff so that you can get a feel for our research and teaching activities here in the College of Agriculture. A full tour would take at least a half day, but we would tailor a tour to fit your schedule.

Sincerely,

Orville L. Bentley

OGB:JC

enc

cc J. B. Clear
J. W. Peltason
G. W. Salisbury

P.S. Jim Thomson had an editorial in the July 1 issue of the Prairie Farmer and the Farm Journal reported on their observations on Hard Tomatoes. Hard Times in the August issue. For your convenience, copies of these reports are enclosed.

[From the *Prairie Farmer*, July 1, 1972]

PRAIRIE FARMER SAYS: LAND-GRANT CRITICISMS DESERVE CONSIDERATION

"Hard Tomatoes, Hard Times" is a book that will get the close scrutiny of land-grant college personnel from deans to county extension advisers. Many have already read it. Some are still in shock.

The book is neither scholarly nor unique but is a virtual torrent of abuse that biases invective at every aspect of the agricultural land-grant establishment.

Targets include 4-H, extension service, colleges of agriculture, state experiment stations, government agricultural bureaucracies, and all college tie-ins with agribusiness.

Here is a sample statement that summarizes the impression the authors are trying to convey: "The land-grant colleges . . . have put their tax-supported resources almost solely into efforts that primarily have worked to the advantage and profit of large corporate enterprises, particularly huge corporate farms and ranches . . ."

"Hard tomatoes" is a product of the Agribusiness Accountability Project, Washington, D.C., funded by the Field Foundation.

The book blisters the land-grant complex (colleges of agriculture, extension service, and state experiment stations) for their sins of omission, dereliction of principle, and brown-nose, catering to the whims, interests, and profitability of corporate agribusiness.

The land-grant colleges ". . . are closed communities . . . locked into an inbred even incestuous complex; they are incapable of thinking beyond their self-interest and traditional concepts; they are a failure . . . and a pedantic and cowardly research system."

About the agricultural extension service it says, "It has slighted the pressing needs of the vast majority of America's farmers."

About 4-H: "This social club for youth exists as one of the sacred cows of the land-grant world. It is a frivolous diversion of \$72 million.

The book accuses the agricultural bureaucracy of standing by while DES beef is sold to the unsuspecting public. The authors call DES-fed beef "extremely dangerous to consumers, because there is evidence that the drug is carcinogenic (cancer causing)."

Nonsensical statements are made as gospel about the work of the land-grant complex benefitting agribusiness only. Obviously the ultimate benefactor is the consumer who is getting the highest quality food at the lowest relative prices in history.

The poor benefit most because we can afford to subsidize them with massive billion-dollar free food and cheap food programs.

IT IS true as they say that corporate agribusiness is doing quite well but probably not as well as liberals try to make us believe. In a recent study *Prairie Farmer* found that the average return on equity for 42 food industry corporations was 9.8%.

For the farm machinery industry, which "Hard Tomatoes" hints is making a real killing at the expense of farmers and taxpayers, we found that the average return on equity for the 4 largest companies was 4.4% in 1971.

We are not sure that there is anything wrong with a "cozy relationship" between agribusiness and the land-grant complex provided it is on a business basis. But we agree that it isn't right for ag college people to sit on the boards of directors of corporate agribusiness for fat fees that can easily compromise objectivity.

The book also criticizes the \$750 million open-purse cost of the land-grant agricultural bureaucracy and the Mickey Mouse projects that raise some doubts about the budget.

The authors' greatest contempt for the land-grant complex is reserved for what they call this callous disregard for poor people swept off the land by "an agribusiness elite."

It would be easy to dismiss "Hard Tomatoes" as the empty mouthings of the immature blinded by utopian idealism and with only an Eastern liberal's cursory acquaintance with the complexities of the agricultural community.

It is that. It is also a heavy-handed approach to a task that would be better served with a scalpel rather than a blunt meat cleaver. And their call for more welfarism will turn many people off.

The authors insist that both family farmers and farm labor have been "brutalized by farm mechanization." They also speak of going back to a simpler hand-and-horse type agriculture that can never be.

Unfortunately the authors come across as fanatics when they really have some sensible things to say. There is a wild gleam in the eye as they shed crocodile tears for the poor and the unfortunate and as they belligerently demand of the establishment, "What are you going to do about it?"

They insist that the complex should put major emphasis on the marginal farmer, ignoring the fact that information is available for the taking, and that you can lead one to the waters of knowledge but you can't make him drink.

"Hard Tomatoes" will make anyone who values calm objectivity climb the wall. But thru the morass of leftish distortion, exaggeration, and innuendo, there is enough truth to give the land-grant college complex something to worry about.

Some hard questions need to be asked about the secretive and debatable methods of the ag college foundations which license products developed by researchers at taxpayer expense.

Obviously some changes need to be made in the system, and the deans of the colleges of agriculture, the USDA hierarchy, and corporate agribusiness may not be the ones to recommend them.

The inbred approach of the land-grant bureaucracy which "Hard Tomatoes" criticizes would only perpetuate the problem. Let's have some outsiders take a look.

[From the Farm Journal, August 1972]

LITTLE BOOK, BIG UPROAR: WHY NONFARM CRITICS DEMAND MORE RESEARCH AND EXTENSION FOR SMALL FARMERS

(By Jerry Carlson, Managing Editor)

"Stupid. Stupid. *Stupid!* How can they *deceive* a Senator like this?" Sue Seehler, perky young fact-finder for the Agribusiness Accountability Project in Washington, clenched her fists in the hearing room seat beside me.

Gray-haired ag college administrators were at the witness table up front, defending universities and Extension from accusations of ignoring small farmers. Sue elbowed me: "How can you stay so *calm*!" Exasperated by the testimony, she swirled out of her chair, pushed open the Senate chamber door and stalked down the hall: *Young. Idealistic. Outraged.*

Those were the three explosive qualities which propelled a handful of activists to blast the blankets off years of accumulated bureaucracy last month. Three men and nine women armed with typewriters took on the whole land-grant system—USDA, ag colleges, experiment stations and Extension.

Jim Hightower heads this loose-knit group, called the Agribusiness Accountability Project. "The way you get action for the poor and powerless is to go after those *with* power," he says. "You get the Establishment's attention through newspapers and TV."

Although he is not connected with consumer critic Ralph Nader, Hightower uses a stock Nader tactic: Study a subject, dramatize the findings in a "research report," trigger a Congressional hearing.

His book, "Hard Tomatoes, Hard Times—The Failure of the Land Grant College System," drew news media attention, all right. It insisted that research and Extension workers have:

Ignored millions of displaced small farmers and rural poor, spending most of their time cozying with elite farmers and agribusinesses who least need help.

Taken agribusiness grants into public laboratories to perform research which mainly benefits the private firms doling out the money.

Tolerated discrimination which deprived Negro land-grant colleges from research funds and cheated black farmers from Extension help.

These indictments helped trigger the hearing by Senator Adlai Stevenson III (D., Ill.), chairman of the Senate subcommittee on migrant labor. Witnesses piled up counterfire and endorsements which far exceeded the volume of the original book itself.

Don Hadwiger, professor of political science at Iowa State University, gave Hightower good marks for "honest efforts and good intentions."

Hadwiger noted that: "USDA is quite proud of its domestic food programs today, but it spent months and even years trying to refute the justifications on which those expanded programs are now based."

Stevenson seemed relaxed and a little bemused through the two-day hearing, except when Secretary Butz began peppering questions at the chairman from the witness stand. Butz asked Stevenson: "Are you being antisocial," now that the Stevenson family farm in Illinois supports just one family instead of its former three? "What would happen if you brought those two families back from nonfarm work and divided the farm's income among all three households?"

E. T. York, vice president for agricultural affairs at the University of Florida, scorned the Hightower book at "the most biased, distorted and irresponsible piece of writing I have ever seen."

York backed up the defense of his university with a volume bigger and thicker than Hightower's, and also handed out tasty Florida-developed tomatoes and peanuts.

Thus the crackle of peanut shells punctuated other witnesses' testimony as the audience munched and meditated. Naturally the daily news media reported the battle, quote by quote.

But you can sort out the real issues only by picking through the debris of rhetoric left behind the debate. Two basic questions:

1. Now that U.S. taxpayers are spending more than \$100 billion a year on social programs, how can research and Extension make these tax dollars more effective for the people who need help?

"We have this enormous Extension system that has never gotten its feet wet in this area and doesn't know what federal programs can or can't do," stressed Hadwiger of Iowa State.

2. How will a shift in priorities affect the level of research and Extension help to commercial farmers?

A few leaders within the land-grant system have agonized over those questions more than anyone. But the system's own inertia, plus that of Congressional conservatives who control the federal appropriations, have prevented much shift in funds and priorities.

Most of the counterfire to "Hard Tomatoes" simply defended the land-grant system's past accomplishments. But some solid, hopeful ideas came through.

Publio emphasizes on the "little guy" should help build steam behind the Rural Development bill. This action would help create part-time jobs near home for farmers with smaller acreages; full-time jobs for youngsters who want careers in their home communities. As Secretary Butz emphasized, it's naive and nostalgic to think we can raise the incomes and satisfaction of millions of people by asking them to depend solely on small plots of land.

While local and state funds continue supporting farm production research, a greater share of federal funds can be aimed at people-oriented research. Much of this should be coordinated regionally. Hadwiger also suggests special-function teams of researchers to "provide a way around the existing balkanization of experiment station research," where a creative individual can't get a project past his director.

In a private interview, Ned Bayley, USDA's director of science and education, told me of such beginnings. Four universities have recently established regional rural development centers: Cornell, Iowa State, Oregon State, and Tuskegee Institute. These will be action-oriented centers, "not just data collectors," said Bayley. Kansas State also has a statewide rural development center.

"On this kind of community work, research and Extension have to work together," said Bayley. "They can help local people take stock of what they have to work with in the community, then help get what it wants. Do feasibility studies like this—" Bayley thumbed through a notebook of projects—"Could this egg-breaking firm employing 50 people make a go of it in this Georgia town?"

"We'll have to prove to Congress that we know what we're doing on social and economic work before getting major appropriations," noted Bayley. "And we'll have to grow most of the people who'll put their hearts into the job—I'm looking at today's undergrads. It's not work that produces professional papers."

Hadwiger of Iowa State proposed that land-grant researchers also turn to "evaluating assistance programs for rural people. Much effort and dollars have been spent evaluating commodity programs, but there is almost a taboo against looking critically at food programs; housing programs." He suggested a "reporting service," like a crop reporting service, to monitor rural conditions—"numbers of inadequate houses, participation in school lunches, extent of rural poverty and so on."

The National Farmers Union proposed research on international commodity agreements and the effect of diminished rail service in rural areas.

Orville Bentley, dean of agriculture at the University of Illinois, ticked off a

half-dozen areas he's already pressing into; "Our farmers are vitally concerned with property taxes, for instance. What are the economic and social affects of different blends of property taxes, income taxes, sales taxes? It means a lot to the man who wants to make a living on the land."

Overall, we need research to discover new kinds of efficiencies on a regional and national scope, rather than just programs that shuffle new industry and tax dollars from one place to another.

What can the country gain "if the new industry locates at Podunk instead of Compost Corners," as Don Paarlberg, USDA's director of ag economics puts it? When a million people migrate to cities this year, what's the net cost to society of supporting them there versus providing opportunity in the country and rural towns? There's scarcely enough information on these subjects around now to write a decent one-page feature story.

Other watchdog groups like the Agribusiness task force are at work. A group of former Cornell students have released a 440-page report called "Failing the People." It jabs Cornell University. Maybe public-interest groups can help shield budding socially-oriented research and Extension from Congressional reprisals, which have previously clobbered this kind of effort.

Rep. Jamie Whitten (D., Miss.), powerful chairman of the House Appropriations Subcommittee on Agriculture, has warned USDA against social-type research, but he appears to be changing a bit. He helped the Negro land-grant colleges get \$12.5 million in research funds for fiscal 1971, the first significant research money they've ever gotten. Most of it will go to people-oriented studies.

This year, Congress also gave the USDA four times as much money as it requested for sociological research. But you can expect USDA to step cautiously.

Back in the 1930's, Congress killed the Farm Security Administration, a vital USDA drive to help small farmers out of the Depression. The axe fell again from Capitol Hill in the 1940s, gutting the Bureau of Agricultural Economics for "socialist schemes." BAE had dared to push for both social research and action, including federally financed training to help farmers diversify.

Today, one of the strongest advocates of social-economic research is USDA's ag economics head, Don Paarlberg. He says, "In the past we had an implicit policy that drove rural people to the cities. What we now propose is an explicit policy that gives them a choice."

Helping the little guy demands a lot of Extension time. For instance a new experiment started by the Creston, Iowa, regional Extension office employs top farmers as "Extension aides"; one aide can serve about 25 low-resource farmers.

However, if people prod Congress into giving our land-grant leaders a chance, we can work another series of new wonders in the countryside which will far surpass our technical achievements.

Jim Hightower, head of the Agribusiness Accountability Project and about its only full-time worker, operates from an old brick building at 1000 Wisconsin Ave., N.W. in Washington, D.C. The building houses a collection of public-interest groups, chief of which is the Center for Community Change. This is a kind of midwife organization which sponsors several social-action causes, helping them get rolling on their own. Hightower's principle funding is \$68,000 from the Field Foundation. The "Hard Tomatoes, Hard Times" project has cost only about \$18,000 so far. The book's 2,000-copy press run would have sold out quickly, but chief researcher Sue Demarco began rationing them to buyers after the National Association of State Universities and Land-Grant Colleges bought 150 copies. Hightower grew up in Denison, Tex., worked summers chopping cotton on his uncle's farm, studied government and law. As we chatted in his tiny office, surrounded by posters on the walls ("I Believe in NFO" and "Nixon's had ITT"), I asked why a book by such a friendly guy could lash out with such harsh language. "Apparently that's necessary to get someone to listen," said Hightower.



THE EXTENSION COUNCIL REPORT

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Doorway to the University"

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INSIDE
COOPERATIVE
EXTENSION...

... with
Director
J.B. CLAAR

BALANCED PROGRAMS IN A TIME OF CHANGE

The Cooperative Extension Service has a well known reputation for its work with groups that are sometimes termed "traditional Extension audiences." Such audiences include commercial farmers, agricultural industry groups, home economics units and clubs, 4-H clubs, and many related special interest groups.

To meet the needs of the people who seek information from us, we began several years ago to specialize, and to choose both subject matter and instructional methods to meet the interest of persons with different backgrounds and levels of knowledge.

As a result of this deliberate effort to relate programs to audience needs, many new groups have been reached and participation in Extension programs has grown.

The overall result has been the achievement of a well-balanced Extension program that helps to meet the needs of a wide

range of audience segments making up our society.

The total Extension program in Illinois maybe divided into three broad program areas: business and professional development, personal development, and community resource development.

The ultimate objective is to strike a program balance by developing new programs that need to be developed while maintaining and strengthening existing programs that continue to serve significant needs. This has been done by specializing and tailoring subject matter to the level of each group.

Sometimes efforts to stratify audiences and develop innovative new programs have resulted in needs beyond the scope of current Extension budgets. Fortunately, the Cooperative Extension Service has been successful in securing various kinds of support and assistance from many different sources to support this basic programming objective.

The purpose of this report is to cite examples of new, less-known programs that they may stimulate an exchange of ideas among counties. At the same time, the report will help define developments in each of the three broad areas of Cooperative Extension programming and will indicate both the breadth and balance of our current overall program.

Business and Professional Development

Programs in this area are directed toward helping people within a target

State • County • Local Groups • United States Department of Agriculture Cooperating

audience earn a better living either by improving their managerial skills or by improving their overall professional competency. The following are examples of new programs in this area, many of which are aimed at specific target audiences.

Manpower Development: Job Training and Education

In the Kishwaukee Junior College area, the Community Resource Development area Extension adviser is leading and coordinating a manpower development program aimed at rural areas. As part of the program, Kishwaukee Junior College is conducting a labor survey with the cooperation of the Department of Labor and the State Employment Security Office.

Results of the survey will help the Cooperative Extension Service plan its educational programs. The results will also help the local employment office with its placement service and the Kishwaukee Junior College in its vocational and technical training programs. The program will help the people of the area more accurately assess future job opportunities and upgrade their skills to take advantage of what will be available.

The overall effect will be to more effectively provide job training and education that matches job availability in the area. The program is funded through the Extension Service in Washington, D.C. and is also recognized as a national Concerted Services Program.

Working With Low-Resource Farm Families

Special programs in southern and western Illinois have been underway for several years. The southern Illinois program reached about 150 farm families during 1970-71. The western Illinois program involves an intensive analysis of the resources, capabilities and interests of about 30 farm families. Families are constantly "graduated" with the program moving on to others.

One-to-one counseling and referrals to helping agencies in the area have been highlights of the two programs. The objective of the two programs is to assist the families in decision-making, and depending on resources available, help them with their farm and home management decisions or help them investigate supplementary non-farm employment opportunities.

The southern Illinois program was funded for two years, and efforts are underway to find funds to continue and expand the program.

Food Services Personnel Workshops

The recent completion of two new interstate highways through Effingham County brings thousands of people to the area. As a result, restaurants and motels with food service have sprung up.

Representatives of the local hospital and several motels requested assistance from the Cooperative Extension Service to train young people and others to work in food services.

Extension personnel developed the program taught by restaurant managers, representatives of the State Department of Public Health, University of Illinois home economists and other Extension staff members.

More than 230 people attended the sessions. Evaluations suggested the material was useful and well presented, and the restaurant managers were especially appreciative for the training given to their potential employees.

Family Economics Programs

County Extension advisers have repeatedly pointed out the need for teaching materials for programs directed at low-income audiences. Specialists have responded to these requests.

A Consumer Education Portfolio was developed for county and area advisers.

The portfolio includes packets on the following areas: choice-making, credit, family financial management, consumers in the market and life insurance. Accompanying the portfolio is a set of visuals designed for use with low-income audiences.

Packaged programs in family economics is another response. Specialists started a series of packages with "What You Need to Know About Money and Your Child." The package includes the following: a circular, a scripted slide set, a guide for presenting the information and a news release. Though only recently released, the package has evoked enthusiastic response from users.

The third response is a series of five leaflets designed to help low-income readers make financial choices and decisions. The series deals with how the Johnson family faces a money emergency, looks for a place to borrow, compares cost of credit, decides if they can afford credit and solves their money emergency.

Farm and Family Business Management Workshops

The farm and family business management workshops sponsored by the Cooperative Extension Service are designed to help farmers improve farm and financial management skills. The program consists of 12 to 16 hours of lectures, workshops, and follow-up, on-the-farm visits.

Since the program began, 2,500 farm families have participated in the workshops. Hundreds of other farmers have consulted with county and area advisers on problems that can be solved by the same procedures taught in the workshops.

Many of the ideas developed in the program have been incorporated into the financial planning work of farm businesses for lending institutions. Low-income farmers have used the same procedures to

improve their relative positions. And other farmers, who have had other alternatives, have decided to seek other means of employment.

Tax Practitioners Training School

The Cooperative Extension Service sponsored 32 Farm Income Tax Schools in 23 locations from November 15 to December 17, 1971. Enrollment at the schools was 2,587, the highest in the 32-year history of the schools. The schools are for tax practitioners, people who prepare tax returns for others, who reported that during the 1971 income tax-filing season they prepared about 190,000 farm tax returns and about 340,000 other returns. Practitioners from all Illinois counties attended the schools, as well as enrollees from Indiana, Kentucky, Missouri, Iowa and Wisconsin.

The Illinois Department of Revenue in both the Springfield and Chicago Districts of the Internal Revenue Service cooperated by providing instructors and by helping prepare teaching materials. Other states are patterning their tax schools after the Illinois system.

Fish Farming

A new program, developed in cooperation with several other agencies, is aimed at exploring the potential of fish farming as an enterprise in Illinois. At present, advantages of such enterprises in the state are these:

- To develop a new industry for the people of Illinois.
- To provide another source of income in the state, both as a business and as a means of providing more jobs.
- To utilize resources that are not now in use.
- To provide more high-protein food.

The Cooperative Extension Service, the Illinois Natural History Survey, and the Illinois Department of Wildlife have already held a TeleNet conference to discuss the potential of fish farming. And the Cooperative Extension Service and the

Illinois Natural History Survey plan to co-sponsor a two-day conference on fish farming in mid-June.

Grain Futures Seminars

Most farmers are still not well enough informed about futures markets to make effective use of them in pricing their crops. Too often, farmers either ignore futures markets entirely, or trade in them in an attempt to reap quick, speculative gains.

During 1971-72 a series of three seminars were conducted in 24 counties. The seminars, attended by nearly 500 commercial farmers and agri-businessmen, provided answers to these problem-areas:

- What are futures markets?
- How do they operate?
- How can they be used as a source of market information, and to forward price grain?

Participants also studied pricing in the cash market as well as in the futures market.

Pick-Your Own-Strawberries Popular in Southern Illinois

Horticulturists both in Urbana and at the Dixon Springs Agricultural Center have developed a successful method of marketing strawberries. And the method has become widely used in southern Illinois counties by all fruit growers.

The horticulturists have developed a set of guidelines for strawberry growers to use when they allow consumers to come to their beds and pick their own produce.

The approach is popular with growers because it eliminates labor problems and cuts both growing and marketing costs. Most growers say the program increases their net profits.

Farm Bargaining

A pilot program offered to three counties has received widespread approval

from the 50 participants enrolled and will be offered in at least six multi-county groups in the state next year.

The overall objective of the program is to help farmers assess farm bargaining in agriculture and to study its consequences and limitations.

The program on farm bargaining covers these areas:

1. Prices and Pricing Systems
2. Agricultural & Labor Bargaining: Similarities & Differences
3. Bargaining Through Associations
4. Future Prospects & Problems in Bargaining

Attendance has been above 45 at each session, and specialists note that less than 25 percent of those enrolled were 50 or older. Most participants were in their 30's or 40's. All but two of the participants were commercial farmers.

Who Will Control U.S. Agriculture?

One of the key issues in American agriculture today is who will control production and marketing. The University of Illinois Cooperative Extension Service has been asked to provide leadership for the North Central Public Policy Committee's proposal for an extension program that will describe and assess (1) the potential and prospects for alternative policies that will affect the future control of U.S. agriculture, and (2) the consequences, both economic and non-economic, of the prospects and the alternative policies upon individual farmers, agricultural supply and marketing firms, the rural community, and the consumer.

The proposal outlines a comprehensive effort to bring together an educational program that examines the policies as they relate to the nature of agriculture today, the policy alternatives and the consequences of continuing present policies or the suggested alternatives. Illinois' share of the two-year \$60,000 grant is \$36,000.

TeleNet--A New Teaching Approach

Extension programs with state-wide appeal have always faced a dilemma: Do you bring the people to a central point? Or do you take the staff to the field where they can repeat the program several times?

The use of TeleNet, a "party-line" telephone system operated by the Cooperative Extension Service, appears to capitalize on the advantages and minimize the disadvantages of both approaches. In short, TeleNet permits people to take part in Extension programs at one of the 21 TeleNet sites nearest their home. Extension staff members can remain on campus or station themselves at centers throughout the state and present their information to all sites at one time.

Two examples of effective use of TeleNet are the recent farm management tour and the ornamental horticulture landscaping schools. Here are highlights of the two programs:

The Farm Management Tour. Once the farms were selected, the specialists and the photographers planned and photographed a detailed slide presentation on the farms. They also anticipated audience questions and shot slides to illustrate the answers.

Twenty-one slide sets were developed and one set was mailed to each of the TeleNet sites. The program was presented from Mumford Hall. It was well accepted by both the staff and the intended audience--and it eliminated the risk of spreading disease, a factor to consider when planning farm tours. In addition, the slides and tapes have subsequently been used by 27 advisers to reach more than 1,000 pork producers and other farmers.

Experimental Landscaping Schools. Advisers at 13 of the 21 TeleNet sites indicated a willingness to offer the schools and 57 people enrolled. Again, slides were developed and mailed to advisers as

were instructions for use. One specialist presented information from the Rockford site with an audience. The other remained on campus.

Advisers reported excellent acceptance of the TeleNet program, and the specialists plan to repeat that program and make more extensive use of TeleNet next year.

Dairy Specialists Expand Reach Through Target Audiences

The dairy science Extension specialists have developed a successful program with dairy-plant fieldmen throughout the state. The fieldmen are an important target audience because of their close contact with the 12,000 dairymen in the state.

Programs of the Dairy Fieldman's Conference have covered a variety of topics. About 100 fieldmen attended the most recent program in the fall of 1971. The program dealt with a problem in the minds of many Illinois dairymen and dairy-product processors: pesticide residues in milk.

These are examples of topics covered in the program:

- Controlling insects and avoiding residue problems.
- How the Bureau of Environmental Health handles residue problems.
- Accelerating removal of pesticide residues.

Other topics included waste management, competition and how to sell management ideas to dairymen.

The dairy specialists have also worked closely with the Illinois Milk Quality Council to help dairymen understand how they can better meet interstate milk shipment requirements.

The specialists prepared a direct-mail brochure that was mailed to 12,000 dairymen with funds provided by the Council and its commercial members.

Most programs directed to the fieldman audience are designed to help maintain high consumer standards already in existence.

Personal Development

Programs in this area are intended to help people achieve their potential as individuals and to help them perform their work and family roles more adequately. In addition to significant programs through Extension Homemakers and 4-H clubs of an on-going nature, programs are often designed to meet the needs of target groups such as low-income people, migrant workers, the elderly and the handicapped. This area also includes in-service education programs for home economics professionals and employees of agencies in home economics-related fields.

The Expanded Nutrition Program

Thirty-seven counties have active programs in the Expanded Nutrition Program. During the past year approximately 30,000 families have been reached with some type of nutrition-education program. As of June 30, 1971, 10,000 families were enrolled in the program and were receiving regular visits from the program assistants. Records show that 62.7 percent of these families have incomes of less than \$5,000. About 85 percent are from urban areas, while 12.5 percent are rural families and 1.8 percent are farm families. Almost 60 percent are black, while 35 percent are Caucasian, and 8.5 percent are of Spanish-speaking origin--primarily migrant workers.

County Extension advisers have recruited and trained 55 program assistants during the year, bringing the total working number to 300 people. Approximately 55 percent of the program assistants are black, 38 percent are Caucasian, while about 7 percent are Spanish-American.

The youth component of the Expanded Nutrition Program has continued to focus on the objective of improving the level of family diets. The effectiveness of

the youth program is difficult to measure because many of the participants are not from program families. During the past year, 18,000 different youth were reached with some type of nutrition education. Approximately 50 percent of these boys and girls were from low-income families residing in the target areas but their mothers were not participating in the Expanded Nutrition Program.

Activities for youth varied from day camps held in public parks to small groups of youth who met in an individual's home.

Six hundred volunteers assisted with the youth programs in the counties. Most of these volunteers helped with a specific activity or assumed responsibility for a short-term project.

Programs for Migrants

Children and wives of migrant workers are a target audience for Extension programs in many Illinois counties.

Here are some 1971 highlights of five such county programs.

--Lee County carried on a 4-H Club program for children of migrant workers conducted by community volunteers, church group members, and Extension unit members. All participants received health kits. Teachers at the Paw Paw High School instructed the boys in welding and woodworking projects. The Latin American Club of Rochelle, composed of settled-out Mexican families donated money to the 4-H program.

--Ogle County conducted a four week 4-H program for 66 young people, sons and daughters of migrant workers. Girls worked on nutrition projects and creative arts. Boys did project work in electricity, small engines and creative arts. Seven local people served as instructors and members of the planning committee.

The program will be continued and expanded in 1972 under the direction of three local leaders.

Transportation for children is provided each week by volunteers from each Extension unit. And each 4-H club in the county sends three or four older members to act as teaching assistants at each meeting.

The 1972 program has been planned for the six-week period that coincides with the time migrants are in Ogle County harvesting asparagus.

Local support of the program for more than 70 migrant children has been outstanding. The Rochelle school board has donated space and the facilities in three home economics departments for the girls' programs. And the boys' program will be offered in space donated by St. Patrick's School.

In addition, local merchants have donated supplies and have established discounts on food purchases used in the nutrition projects.

To recognize achievements the children make during the six-week period, the program leaders have planned an achievement meeting at the Rochelle Sportsman's Club. The county Pork Producers group has volunteered to provide a pork chop barbeque for all program participants.

A unique characteristic of this program has been the involvement of a variety of traditional Extension groups. And their involvement greatly contributes to the migrant program's success.

--Vermilion County's Expanded Nutrition Program attracted about 60 young people from migrant families. The program is conducted primarily by a program assistant. The same program assistant cooperates with Head Start and works with 50 Mexican families on a regular basis.

--Iroquois County's 4-H program for children of migrant workers began in early spring when workers came to the area for asparagus harvest and continued through tomato harvest in early fall. Through cooperation with the Milford Mi-

grant Council, funds were provided for 4-H project work. Community groups also donated fabrics and cooking utensils for sewing and cooking. About 25 migrant children participated in the program.

--LaSalle County's program is directed to former migrant-worker families that have decided to settle permanently in the county. Extension advisers have relied heavily on local volunteer leadership to teach Homemakers nutrition information. A retired home economics teacher has become involved in the effort and is teaching the Mexican people to speak English.

Consumer and Homemaking Education For Low-Income Families

A special project for low-income families has been launched by the Cooperative Extension Service with funds from the Vocational and Technical Education and Rehabilitation Division of the Illinois Department of Public Instruction. The primary audience is families whose incomes are at the poverty level.

As a result, 22 program assistants are now working with 500 families in many areas of consumer and homemaking education. The objective of the program is to teach all participants--including program assistants--to manage their limited resources to receive maximum satisfaction and to improve their standards of living.

The objective is accomplished by helping participants understand money-management principles, providing information on budgeting, credit and installment buying and by increasing their skills in food buying, meal planning and food preparation.

In addition, the program attempts to make participants more aware of community resources, labor saving home management practices and good housekeeping techniques.

Extension advisers provide the program assistants with a continuous in-service

education program to enable them to help the families they visit. The program assistants use a variety of techniques--home visits, tours, mass media and small group meetings--to reach the families.

The program is being offered in two single counties--Jefferson and Wayne. And in addition, it is being carried out in one multi-county unit including Green, Jersey, Scott and Calhoun. A multi-county adviser directs the program in that area.

In Calhoun County a group of 4-H pre-teen children are working on projects including money management, baby sitting, sewing and family gardening.

Consumer Affairs in Health

How do Illinois residents make decisions about health practices and choosing physicians and health facilities? Too often they don't. They seek help and follow practices with little or no information to help them decide. The Extension health specialist has developed a program that will ultimately promote the health of Illinois residents and will increase their ability to make wise health-care expenditures.

The program is being conducted through 55 county advisers who participated in the TeleNet course, "Tips for Health Consumers." Their work will be supplemented by the efforts of 90 local leaders who attended training sessions in four counties.

The ultimate audience will be the more than 1,000 homemakers who participate in the program and an impossible-to-estimate number of people reached through the mass media.

Here are accomplishments to date:

- Development of instructional resources in areas of health insurance and selecting health care facilities.
- Production of a slide set dealing with different aspects of consumer health.

--Pre- and post-tests of advisers' knowledge of consumer health, in conjunction with in-service TeleNet course.

--Established important relationships with representatives of the Food and Drug Administration, voluntary health agencies and the University of Illinois College of Medicine.

--Made preliminary report of this program at A.M.A. Conference on Rural Health in Atlanta, Georgia.

--Survey of consumer health knowledge among 1,000 Illinois homemakers; data to be used to further develop this educational program.

Teaching Homemaker Aides

Both Child and Family Services and Family Services of Champaign County have homemaker-aide programs that offer aid and educational information for low-income families.

In some cases they perform homemaking tasks when homemakers are ill and teach other family members to assume part of the responsibility for keeping the home running smoothly.

An Extension home-management specialist has conducted a series of in-service education classes for aides in the area. Some classes have dealt with the many patterns of family household management. Others have dealt with improving management skills and helping families plan and carry out budgets.

As a result of some initial work on budgeting, a group of aides requested more in-depth help with financial management. They pinpointed that particular area because the families with which they work have extremely limited incomes and often have a high level of medical expenses.

The specialist taught a series of four classes covering the following topics: choice making, financial planning, budgeting and record keeping, and shopping skills.

Nutritional Status Survey

During April, 1970, elementary school children in the school system in Danville, Illinois, were involved in a nutrition survey. The primary purpose of the study was to determine the nutritional status of the elementary-school population in a typical midwestern industrial community. More than 2,300 children, representing about 40 percent of the total kindergarten-through-sixth grade school enrollment, participated. Physical examinations, urine specimens, blood samples, and dietary-recall techniques were used to assess nutritional status.

A secondary purpose of this project was to encourage the development and implementation of a comprehensive nutrition-education program in the Danville schools. Cooperative Extension personnel were responsible for developing nutrition-education program suggestions as a follow-up to the survey.

The study was conceived by the University of Illinois College of Agriculture Nutrition Steering Committee and was supported by funds from the Illinois Expanded Nutrition Program.

Handicapped Family Members

Extension workers are called up increasingly to assist with the social and psychological development of mentally and physically handicapped people.

Piatt County reports an example of such work. The Piatt County 4-H Federation received \$100 from the Illinois 4-H Foundation to work with the educable, mentally handicapped children in the area. Piatt County Mental Health Department personnel, several local volunteer counselors and the Extension staff conducted a four-day camp for 42 school children. Local merchants gave their support by furnishing some of the supplies.

The Extension program for the visually handicapped started several years ago and

has grown to include many more counties. The Extension staff helps find local volunteers who are willing to work on a one-to-one basis to teach blind people. Teaching materials are supplied by the county Extension staff and frequently the county staff assists in training the volunteers.

Family-life specialists and county staff in District II have developed and used a correspondence-course series called "Living With Your Child." This is a twelve-unit course sent to a mailing list of 225. The state specialists provided reading materials and advised the county staff regarding the series. An evaluation conducted following the course indicates that the families considered the teaching helpful.

Neighborhood Youth Corps Project

Extension's cooperative project with low-income youth to reduce high school dropouts, had tangible benefits. Of 45 enrollees in 33 different counties only two failed. Thirty-one graduated, two others moved away. The remaining 10 continued into the summer program and will be back in school in September.

The project combines quality work-programs with outstanding teaching and counseling efforts of county Extension staff members to bring these high school students through real hard-core problems that jeopardize their educational progress. The project is carried out in cooperation with the U.S. Department of Labor.

A larger maximum enrollment for the project is being asked because only one-third of our 99 county facilities are being used currently. A new project agreement was executed in June 1971.

Newsletter to Food Stamp Purchasers

The Henderson and Warren County Extension advisers, home economics, jointly write a newsletter to help participants

in the food-stamp program learn basic nutrition, food selection and food preparation.

The newsletters are distributed through the Public Aid offices in the two counties, and at least 300 people receive the letter each month as they purchase food stamps.

Upkeep of Public Housing Facilities

Many new and shining public housing projects quickly show signs of wear and tear when residents move in. Anticipating such a situation, the Knox County Extension adviser, home economics, now cooperates with the Office of Economic Opportunity in Galesburg in an effort that reaches more than 200 low-income families of many nationalities.

The objective: for occupants of new public-housing facilities to learn and practice approved housekeeping methods, to learn to care for equipment and to learn to keep homes clean and livable.

Youth Program for Socially Deprived

Through a grant received for 4-H like programs, Jefferson County volunteers conducted a program for 83 socially deprived black children ranging from 3 to 16 years of age. A group of adult volunteer women from the Second Baptist Church in Mt. Vernon, two teachers, four teenagers and a program coordinator led the program.

Initially, the program was intended only for girls. But it became evident boys wanted to participate also, so they were included in the foods section of the program.

The program included teaching of skills in food preparation and clothing construction. The work on food included studies of food needs, selection, purchasing and the evaluation of food preparation. The clothing segment of the program covered fabric care, construction and other aspects of clothing care.

The girls attending could not sew, so it was necessary to teach them to use the sewing machine. Machines were loaned for use in the program. Fabric was secured when 25 homemakers in the county donated remnants left over from their home sewing.

In evaluating the program, the volunteers sharply recognized that the results of a program for socially deprived young people should not be measured for success against a program with the average middle class standards and values. And the volunteers agreed that the summer project had been a huge success.

Community Development

Programs in this area are aimed at helping people improve their communities both as places to live and as places to earn their livings. Specifically, programs are directed at achieving the following objectives:

1. Provide information and promote discussion on local, state and national issues where final action must be taken by a group or public body.
2. Assist people to arrive at sound group decisions and take action to improve the social and economic well-being of their communities.
3. Help people understand the magnitude and complexities of natural resource problems and to assist them in protecting, conserving and using these resources in the best public interest.
4. Help people understand employment and career opportunities and alternatives, and assist them in making wise decisions relating to these alternatives.
5. Provide economic information relative to agricultural outlook and policy in an attempt to improve and stabilize farmers' incomes through both individual and group decision making.

Human Interaction and the Physical Environment

A unique project, "Human Interaction and the Physical Environment," is structured around a color-sound film, a slide set and narration and video-tape presentations prepared in the community to identify local problems and present possible solutions. A 300-page workbook is also available for local-leader use in developing local action programs.

The overall objective of the program is to generate local concern and action for the aesthetic impact of new developments on the community. And the program focuses on the education of people to eliminate the apathy that tolerates blight, disorder and ugliness within communities.

About 25 communities currently are at some stage of carrying out the new program, and many other communities within the state plan to make commitments soon.

Two Rivers Resources Conservation and Development Project

The Federal government recently approved a request to help sponsors develop a plan for the Two Rivers Resources Conservation and Development Project. The project will involve a five-county area and is a long-range effort to solve natural-resource and environmental problems. The project ultimately should result in the following accomplishments within the area:

- More jobs and new income.
- Increased farm profits.
- Protection and development of land and water resources.
- Improved housing.
- New recreational facilities.

While the USDA Soil Conservation Service has the responsibility for coordinating the project, county advisers and the area adviser in resource development will play vital roles in helping local leadership organize for action and express their opinions. The Cooperative

Extension Service personnel will also be working with local groups to develop educational programs in community resource development to support Resources Conservation and Development.

Process Skills Training Program

Community problems frequently require coordinated effort by many citizen groups working together with elected or appointed officials. The Cooperative Extension Service is charged by the USDA to provide leadership in organization and technical information to such groups.

The Cooperative Extension Service recently received a three-year \$86,000 grant from the USDA's Extension Service to develop a program in organization development and human relations.

The project plan is to develop training modules on leadership styles, team skills, conflict resolution, communications, prejudice, and change implementation. The materials will be used to help community leaders throughout the state solve local problems.

A coordinating committee of 17 U. of I. staff members representing a cross-section of University interests is assisting in the development of the materials.

Business and Industrial Development

Under Extension guidance the Bi-County Resource Development Committee (Pulaski-Alexander Counties) organized itself into the Pulaski-Alexander Development Corporation (PADCO) in 1968. PADCO has emerged as a positive and constructive force for community development in the racially-torn Cairo area.

Eleven blacks and 11 whites work together on the Board of Directors and citizen involvement numbers about 200 members. During June and July, 1971, PADCO announced the formation of three new small industries that with a capital investment of \$2.5 million employ about

-12-

250 new workers. A new sheltered-care home is also being planned. Loans have been approved and sites selected for the enterprises.

The area Extension CRD adviser was instrumental in organizing the original Bi-County Resource Development Committee and provided leadership in forming PADCO. He continues to work closely with PADCO as an adviser and consultant.

Extension has also been active in formulating an agreement between the Delta Regional Planning Commission comprised of Pulaski and Alexander Counties and Union, Massac, and Johnson Counties to form a five-county planning and development commission as an EDA district.

The area CRD adviser has met several times with the units involved to discuss the advantages of forming such a district. PADCO which is an outgrowth of previous Extension efforts would be the nucleus for such a district.

Development of Rural Cooperatives

Starting late in 1970, a program on Agricultural Business Management was launched by the Cooperative Extension Service, University of Illinois, Urbana-Champaign campus. The purpose of the program is to improve the management skills of small agriculturally oriented businesses, including cooperatives, in Illinois. The objective is to help firms become more stable and productive and, consequently, able to expand employment opportunities for persons who live primarily in the smaller rural towns and communities of the state.

Initially, eight county specialized advisers were given training in the program to enable them to teach management principles to managers of rural, community-oriented agricultural businesses.

Drug Abuse Program

Health specialists in home economics have launched a statewide effort to

provide an overview of the drug-abuse crisis in society and to emphasize preventative measures that can be taken in the home, school and total community.

The program is currently directed at Extension advisers in 50 counties, 500 4-H members of varying ages and the general population of 12 Illinois counties.

The participating Extension advisers have attended a 12-hour in-service education program where they received a drug-education resource kit. In fact, kits were made available to all home economics advisers.

A slide set has been developed to explain the program to the general public.

Though not long in operation, the program has already produced some measurable results. Several communities have organized drug-abuse councils to serve as drug-educational clearing houses for their areas.

Water Sampling Programs

Several areas of the state have undertaken extensive water-sampling programs recently. And in Clinton County, efforts led by the Extension adviser resulted in formation of a water district that recently was granted an FHA loan. The loan will enable about 200 families to get water piped from the city of Breese.

The water district was formed after the county adviser, area dairy farmers and residents of the St. Rose community demonstrated the extent of their water problem. Water samples were taken from 88 farm ponds and wells. And 80 percent of the samples were judged unsafe for use by humans and animals.

The Stark County Extension Service, with the cooperation of several community groups, launched a county-wide water-testing program. More than 700 rural families were contacted and 463 water samples were collected. Based on laboratory tests, 251 samples were declared

unpolluted, and 212 were polluted. One well had coliform bacteria present. The nitrate level was safe in 88.5 percent of the drilled wells tested, but in only 56.9 percent of the dug wells sampled.

Washington County is currently carrying on an extensive Extension and research program on water quality with several agencies cooperating.

Community Programs Provide Hot Meals for Elderly

In urban areas, mainly Chicago and its suburbs, "meals on wheels" programs have been around for several years. The programs provide a good meal each day to elderly shut-ins who have difficulty cooking for themselves.

Such assistance to the elderly has been slower in coming to southern Illinois, however. Resources are scarce and the sparse population often leads outsiders to overlook the need for such programs.

Now, through Extension leadership and the diligent efforts of a group of Benton residents, the Community Meals Program of Benton has been successfully launched and other communities in the southern one-third of Illinois are beginning their own programs.

An Extension Community Resource Development adviser and a Public Health official developed an area community meals workshop held recently in Marion.

More than 110 representatives of 26 southern Illinois counties attended to learn how they could start community meals programs in their communities. The workshop included the history of community meals programs, an analysis of the

need and a thorough discussion of the Benton program--how it works and what it is doing.

And through the Benton program, a model has been created for other communities to follow. In Alexander, Pulaski, Massac and Jefferson Counties, community meals programs are being organized. And Union County recently inaugurated its own.

As a result of the workshop, Hardin, White, Hamilton and Perry Counties are giving serious consideration to starting programs, and several other communities in the area are requesting assistance.

Bureau County Health Resources Project

A project in cataloging health resources in Bureau County promises to serve as a model for all other Illinois counties.

The project began when representatives of the Cooperative Extension Service, urban-development specialists, and representatives of recreation, parks and health-education groups in the county met with the Bureau County Community Resource Development Committee.

The group, through Extension leadership, recognized the need to assess local health resources. The home economics adviser, working through local Extension leadership, surveyed health resources in the county. And based on the results of the survey, a "County Directory of Health Services, Personnel and Facilities" was published with local funds.

The directory will help acquaint county residents with the availability of health resources and will help residents make better use of them.

J. B. Claar

J. B. Claar, Director
Cooperative Extension Service

MONROE COUNTY LEGAL ASSISTANCE CORPORATION
 MID-HUDSON VALLEY LEGAL SERVICES PROJECT

34 SOUTH STREET, MIDDLETOWN, NEW YORK 10940

CHRISTOPHER H. GLANCY
 PROJECT DIRECTOR
 ORANGE COUNTY PROJECT

(914) 343-0831

June 16, 1972

Hon. Adlai Stevenson III, Chairman,
 Senate Migratory Labor Subcommittee
 U.S. Senate Office Buildings
 Washington, D.C.

Dear Senator Stevenson:

On many occasions we have voiced our disappointment with the land grant college complex and its relationship to the rural poor, especially farmworkers. It is with this in mind that

we have decided to send you information which helps to demonstrate the unwillingness of the land grant college complex in New York to respond to those people who most need its valuable resources. We offer this information for your evaluation as you commence upon hearings this June 19-20. Also, we expect that you will find that hearings, in the future, centered around specific land-grant colleges will be most valuable. Of course, from our experience, we feel that at least one such hearing should be held in New York.

Very truly yours,

Jeffrey L. Liddle
 Jeffrey L. Liddle

JLL:mg

Encs.

NEW YORK'S LAND GRANT COLLEGE COMPLEX
TO SENATE MIGRATORY LABOR SUBCOMMITTEE

New York is a rich agricultural state. It produces a valuable array of fresh and processed fruits and vegetables, has a large poultry and dairy industry, and raises large quantities of such exotic products as mink, ornamentals, and lobster. Established to provide for this agricultural industry is Cornell University, the land grant university, and the New York State College of Agriculture and Life Sciences located at Cornell. In addition, there are experiment stations located in Ithaca and Geneva and at other locations throughout the State of New York. Extension services are located in almost every New York County. Cornell's land grant college complex is a multi-million dollar enterprise.

The trouble with Cornell, however, is that little or no resources are devoted to the rural poor. Farmworkers especially receive almost no benefit whatsoever. Small farmers are allowed to be pushed out of business. Even the not-so-poor, the consumer and the environmentalist, are neglected by Cornell. It was with this uppermost in our minds that three members of the staff of the Mid-Hudson-Valley Legal Services Project wrote, in our spare time, an article dealing with the neglect of rural New Yorkers by Cornell. The article will be available very soon in the Spring Edition of the Texas Southern University Law Review. During that same time, a much more detailed and comprehensive study of Cornell's impact on rural New York was being written in book form by Messrs. Watson, Gatehouse, et al., of the Ithaca-based Agricultural Policy Accountability Project; it is called Failing the People and is

extremely valuable. And, of course, the Committee is aware of Mr. Hightower's recently published Hard Tomatoes, Hard Times.

In this report, to you, we would like to relate simply our attempts to gain the benefits of land grant services on a local level. Although, we have been involved in a greater range of questions, we believe that it is also important to view the system from the bottom as well as the top.

Upon funding of the Mid-Hudson Valley Legal Services Project (originally Orange County Legal Services) we felt that the Orange County Extension Service could and should provide many needed services for our major client group, farmworkers. After an examination of the statements of University Administrators and Extension officials, we requested, on October 20, 1971, that the Orange County Extension Service, in Cooperation with Cornell, provide for a meaningful program of Service to farmworkers for the 1972 season. (See enclosure #1).

The following day, on October 21, we appeared before the Orange County Executive Budget Hearings requesting a full accounting, through the vehicle of the legally mandated annual report under County Law §224(8)(a). No such annual report had been submitted in many years. (See enclosure #2).

The County Executive, Louis V. Mills, responded immediately to our testimony by requesting that the Extension Service file an annual report. (See enclosure #3).

On October 29, 1972 the Dean of the College of Agriculture and Life Sciences at Cornell responded officially to our request for a project to benefit farmworkers. (See enclosure #4).

The Dean's response seemed to indicate that the College felt no responsibility to work on the suggested project. He did say, however, that the College would support any decision of the local Extension Service Association. There are no farmworkers or farmworker representatives on the Board of the Orange County Extension Service Association, nor have there ever been any.

Because the Dean's letter was unclear with regard to the responsibility of the college in establishing such a program, we requested a clarification on November 3, 1971. (See enclosure #5).

On November 13, 1971, Nyle C. Brady, Acting Dean, responded to our request with an even more obtuse answer than Dean Palm's. (See enclosure #6). His response indicated that all authority was vested, however, in the local Association.

By this time the Orange County Extension Service Association had implied, through public statements, that they wished to meet with us. However, we felt that, as before, we could not meet without seeing an annual report stating the goals and priorities of the local Association. For that reason, on November 29, 1971, we wrote the Chairman of the County Legislature (into whose hands the full County Budget had passed) requesting an annual report. (See enclosure #7).

Finally on December 3, 1971, we appeared at the Orange County Legislative Budget Hearing and explained that the proposed \$186,486 County appropriation as well as over \$1 million in County funds spent on the Orange County Extension Service over the past decade had never been justified as required by the County Law §224(8)(a). (See enclosure #8). We knew by this time that the Extension Service in Orange County had worked closely on research projects (co-funding) with such agribusiness giants as Campbell

Soup and Agway. We knew that after DDT had been banned for all agricultural uses in New York that the agriculture agents in Orange County had publicly flouted this ruling and suggested that growers use this economic poison anyway. And, we knew that the Extension Service had done very little indeed to benefit farmworkers or small farmers.

It is in this context that we appeal to the committee to consider all of the problems of the land grant system. For this reason, we again appeal to you to hold hearings in New York soon.

October 20, 1971

Dean Charles E. Palm
 New York State College of Agriculture & Life Sciences
 Cornell University
 Ithaca, New York 14850

Dear Sir:

We are interested in the possibility of establishing a meaningful migrant program in Orange County through Cornell and its Extension Service. Such a program would utilize the expertise gained in the Wayne County program this summer, but would, of necessity, go far beyond that program. For this reason, a project would minimally encompass off-farm housing; manpower development, training, and placement; labor relations discussions with both workers and growers; establishment of a positive program of child development; pesticide safety for growers and workers; and work with such agencies as USDA (Agricultural Stabilization, Soils and Conservation, etc.), USDOJ (Rural Manpower Service) in establishing equal and adequate services for agricultural employees as well as others.

The major geographical area should be the Pine Island, New York area in the Town of Warwick. This area, as you may know, is muckland producing large quantities of onions, lettuce, celery, cabbage, radishes, and potatoes. Sod farming is also done there, although it is more recent in the area.

We find it important to make this request and look forward to your response. Presently, the Extension Service does little to benefit migrants-for instance, ENEP serviced only twenty (20) migrant women this past summer and twenty two (22) last

Dear Charles E. Palm---page 2

October 20, 1971

studies and as was determined in last years Cohn Farm negotiations, it is work to be done and action to be taken. Thus, upon notice that the College is interested in a project, we will be more than happy to detail a project request, involve agencies with similar interests, and, as members of the County Extension Service Association work to clarify interests, duties, and responsibilities.

Sincerely yours,

Jeffrey L. Liddle

JLL:bc

cc: William Penfargast
239 Wisner Avenue
Middletown, New York 10940

Edward Smith
c/o Roberts Hall
N. Y. State College of Agriculture & Life Sciences
Cornell University
Ithaca, New York 14850

2869

TRANSCRIPT OF PUBLIC TESTIMONY

Presented to the

ORANGE COUNTY LEGISLATURE ON OCTOBER 21, 1971

Prepared and Presented by
PETER ALBERGHINI &
JEFF LIDDLE

ORANGE COUNTY LEGAL SERVICES PROJECT
6-10 Academy Avenue
Middletown, New York 10940

The Extension Service was established to aid the economic and social development of rural Orange County. To carry out its goals the Service has three main divisions: Agriculture, Home Economics, and 4-H. Each division in its own right has performed a valuable task for rural Orange County. The Division of Agriculture, for example, has worked at protecting crops, livestock and farm woodlots from insects, diseases, and weeds. Home Economics has performed a helpful service to struggling rural families and 4-H has ably initiated the young into agriculture.

However, the character of rural Orange County has changed dramatically in the last decade. While there has been a drastic decrease in the number of farms, the average farm size has increased. The small family farm is a vanishing institution. Instead, corporate names such as Gurda Farms, Inc., and WKW, Inc., dominate the rural scene. The actions of these larger farms have a profound effect upon the daily lives and the futures of the smaller farmers.

Also, each year over 2,000 migrant workers travel to Orange County only to find substandard housing, low wages, high occupational accident rates, and generally abhorrent working conditions. It is ^{and} suffice to say that ^{almost no} ~~few~~ if any other groups contribute more to the health and welfare of the County, but ~~their~~ ^{is} ~~whose own health and welfare has been~~ virtually ignored.

It is the contention of the Orange County Legal Services Project that the Orange County Extension Service must begin to

concern itself with these problems. Therefore, the Legal Services Project has written to Dean Charles E. Palm of the New York State College of Agriculture ^{and} Life Sciences at Cornell University calling for a meaningful migrant program to be established in Orange County through Cornell and its Extension Services. Such a program would concern itself with pesticide safety for growers and workers; farm labor housing; manpower development including training and placement; establishment of a positive program of child development; and co-operation with such agencies as the United States Department of Agriculture and the United States Department of Labor in establishing equal and adequate services for all the people of rural Orange County. The Legal Services Project calls on the Extension Service to take a leadership role in the development of this proposed program.

The continuing changes in Orange County agriculture make it not only appropriate but urgent that the County Legislature also take a meaningful role in such action. Approximately 75% of the Extension Services funds are appropriated by the Legislature, and yet the Extension Service has not submitted a comprehensive annual report to the Legislature in the past three years. Since the Extension Services proposed 1972 budget is 41% higher than the 1969 budget, the legislature should be fully informed as to goals and priorities of the Extension Service and ^{should determine} that the increased expenditures are meeting the needs of all the people and all the institutions ^{of} in rural Orange County.

October 22, 1971

Mr. William Pendergast
Orange County Cooperative Extension
Farm and Home Center
239-283 Wisner Avenue
Middletown, New York 10940

Dear Mr. Pendergast:

At yesterday's Public Hearing on the 1972 Budget, the enclosed presentation was made by representatives of the Orange County Legal Services Project.

I would appreciate it if the Extension Service could respond to the request stated at the bottom of page 2 and top of page 3 (underlined in red). I need a written report which I can file with the Legislature. Thank you, in advance.

Sincerely,

Louis V. Mills

Enclosure
cc: Chairman of the Legislature



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Charles E. Palm, Dean
Roberts Hall, Ithaca, N.Y. 14850
Telephone: 807-256-2241

October 29, 1971

Mr. Jeffrey L. Liddle
Westchester Legal Services, Inc.
Orange County Project
6-10 Academy Avenue
Middletown, New York 10940

Dear Mr. Liddle:

I appreciated your letter of October 20 expressing interest in the Cooperative Extension program of Orange County.

The specific program undertaken by the various associations is a matter of local decision. The Board of Directors is responsible for program with the personnel at the colleges providing support consistent with the resources available to them.

Within Extension Administration at the colleges, the Program Planning and Development Staff is responsible for program development. A member of this group, Mr. David Dik, has had firsthand experience in Orange County in a number of the areas you identified. I am sure that Mr. Dik would be pleased to work with the Association if they felt that his services would be helpful in program development.

May I suggest that you advise the Association of your interest and be assured of our desire to support the Association in conducting programs which fall within its scope and priority. Mr. William Fendergast serves as staff chairman of the Orange County Association.

Sincerely yours,

Charles E. Palm
Dean

CEP:am

November 3, 1971

Charles E. Palm, Dean
 New York State College of
 Agriculture and Life Sciences
 Cornell University
 Ithaca, New York 14850

Dear-Dean Palm:

In response to your letter of October 29, 1971, I feel that there is a definite need for certain clarifications, so that your position may be better understood. Thus, we feel that the following questions need an answer:

(1) Does your reply mean that any proposed project is merely a matter for local determination? Does the college have any control over such decisions? Perhaps, you could explain the difference between this situation and the Wayne County--Cohn Farm Project?

(2) Does your reply simply deal with the allocation of money? Or does your reply deal with staff time, formulation of policy, et al.?

(3) With regard to the Program Planning and Development Staff, is your reply consistent in light of your indication that they, not the local Association, are responsible for program development? I presume development means "policy", as well as implementation? Also, how could you, as Dean, not be of great importance and assistance in establishing this vitally necessary project?

Charles E. Palm, Dean
Ithaca, New York 14850

November 3, 1971
Page 2

(4) We were disappointed in your reply in that we had hoped for an indication of your position on our proposals. Certainly, a clarification would not only be helpful to us, but would go a long way in helping the Association decide what course to follow. In other words, your opinion must stand for something! Please let us know what your position is?

We will be awaiting your reply.

Sincerely,

Jeffrey L. Liddle

JL:cv

cc: Edward Smith, Director of Cooperative Extension
c/o Roberts Hall
N. Y. State College of Agriculture and Life Sciences
Cornell University
Ithaca, New York 14850

William Pondergast
239 Wisnor Avenue
Middletown, New York 10940

Louis V. Mills, County Executive
New County Office Building
Goshen, New York



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Charles E. Palm, Dean
Roberts Hall, Ithaca, N. Y. 14850
Telephone: 807-856-2341

November 13, 1971

Mr. Jeffrey L. Liddle
Westchester Legal Services
Orange County Project
6-10 Academy Avenue
Middletown, New York 10940

Dear Mr. Liddle:

In Dean Palm's absence I am responding to your inquiry. An explanation of the relationship between the college and the county association may help answer the questions raised in your letter of November 3.

One of the unique features of Cooperative Extension in New York State is the autonomy of the local county extension service association. The county law of the state provides for cooperative management of the association and supervision of the staff by the college, yet designates the staff as employees of the association and places responsibility for program upon the association. Furthermore, the major portion of financial support for the association comes from local sources. Thus, the legal relationship as well as the funding arrangement vests a high degree of autonomy in the association.

The college, operating within this framework, becomes the program resource base for the local association. To provide program support we are organized at the college in program units with the Program Planning and Development Staff coordinating unit efforts, developing programs to recommend to associations and searching for resources to support program efforts. In its program leadership role, however, the college can only identify the areas in which program resources are available and offer encouragement in the development of a comprehensive program drawing on these resources. It does not have authority to impose programs on an association.

The areas you have identified in your letter of October 20 include some which fall within the scope of extension programs. I suggest that as an interested citizen and member of the association, you discuss these with the Board of Directors of Cooperative Extension in Orange County.

Mr. Jeffrey L. Liddle

-2-

November 13, 1971

Again, let me assure you of our desire to support the association in conducting programs which fall within its scope and priority.

Sincerely yours,

J. C. Brady
N. C. Brady
Acting Dean

c: Edward H. Smith
William Pendergast
Louis V. Mills

November 29, 1971

Mr. Henry Parry, Chairman of the Legislature
New County Office Building
Goshen, New York

Dear Mr. Parry:

The Orange County Executive and the County Legislature are presently considering cuts in the county budget. While not doubting the distress and concern of the legislature over possible cuts in the welfare budget, it has become apparent that very little review is being required of such budgets as that of the County Extension Service. The Extension Service, which is a major contributor to agribusiness while avoiding its obligations to all of the people of rural Orange County, especially farmworkers, has once again failed to explore its goals and priorities for the coming year to the people of Orange County.

This organization (the Extension Service) which can be viewed as nothing less than a direct welfare subsidy for such a small and lucrative agribusiness, has failed to file a comprehensive annual report. The Extension Service proudly lists three county legislators among its board of directors, and thus feels it unnecessary to respond to the law mandating such a report. Beyond the possibility of conflicts of interests involved here, there is a serious question of public moneys being spent for simple private gain.

As we commented at the Orange County Budget Hearings in October, it continues to be the position of Orange County Legal Services Project that the Orange County Extension

Mr. Henry Parry
Goshen, New York

November 29, 1971
Page 2

Service, an adjunct of the federal, state and county governments and Cornell University, must respond to these questions before receiving any public funds for their next year's operation. We call upon the legislature and executive to publicly demand such.

Sincerely,

Jeffrey L. Liddle

JLL:cv

cc; Mr. Louis V. Mills, County Executive
New County Office Building
Goshen, New York

2880

STATEMENT PRESENTED TO ORANGE COUNTY
LEGISLATURE

December 3, 1971

Prepared and Presented by:

JACK WEINER

Orange County Legal Services Project
6-10 Academy Avenue
Middletown, New York 10940

Orange County Legal Services is opposed to the allocation of \$186,486.00 of county funds to the Extension Service without first requiring that the Extension service file an annual report with the Legislature detailing its operations and revealing the identity of those individuals and organizations receiving monies from the county Extension Service, and the use to which those monies are being put.

\$186,486.00 is a very large sum of money, in a time of national recession, when all branches of government are tightening budgets and reducing expenditures, it is inconceivable that the elected representatives of Orange County would be willing to spend this sum without at least being given the opportunity to determine who is getting the money and what it is being spent for.

The County Extension Service, by its own charter and enabling legislation, is mandated to raise the standards of rural life and to work with all aspects of agriculture. Yet in spite of these avowed goals, and in spite of the fact that the County Extension Service has over the last 10 years, received approximately \$1,000,000 in county funds, the last 10 years has seen a marked rise in rural poverty, a severe decrease in the number of family-owned farms, and a general deterioration in the quality of rural life.

It is the position of Legal Services that there is at least a possibility that this decline in the quality of rural life has occurred because of the failure of the County Extension Service to fulfill its obligations under the law. It is the

contention of Legal Services that the County Extension Service has ignored its responsibilities by concentrating its efforts on behalf of the large agribusiness establishments in Orange County, and at the same time disavowing any responsibility to care for the small farmer and farm laborer.

Legal Services is not suggesting that the Legislature accept what we say as the last word. But before you spend \$186,000, we ask you not to accept what the Extension Service tells you as the gospel. We ask you to investigate, by demanding that the Extension Service take the time and effort necessary to prepare a report of its activities and expenditures and submit that report to the Legislature before receiving anymore funds.

Over the last 10 years the Extension Service has managed to dispose of about a \$1,000,000 in county funds while during the same period, the corporate farmer has grown richer and the small farmer and migrant worker has grown poorer. In this light, requesting a report from the Extension Service explaining the reasons for these results must be deemed a very proper exercise of the Legislature's governmental powers.

[From the Congressional Record, June 9, 1971]

LAND-GRANT COLLEGES AND THE FARM LABOR PROBLEMS

Mr. STEVENSON. Mr. President, I invite the attention of Senators to an article appears in the May 1971, newsletter of the Public Information Center entitled: "Keeping Them Down on the Cornell Farm."

The article is important in several respects. First, it describes the difficulties and nasty realities encountered by a land-grant college in coping with the working and living conditions of its migrant farmworkers.

Second, the article alludes to the fundamental issue that while our Nation's land-grant colleges have devoted considerable resources to the development of an abundance of fruit and vegetables on the one hand these same land-grant colleges may be ignoring their responsibility to the development of a total rural community and the crying needs of human beings in rural America.

As chairman of the Migratory Labor Subcommittee, I will soon be announcing detailed plans for our subcommittee's hearings on investigations. A priority item on our agenda will be a look at the dimensions of the involvement and responsibility of local, State, and Federal Government for the plight of both small farmers and migrant and seasonal farmworkers who live amidst poverty in rural areas.

One focus of our activity will be on benefits available to at least some in rural areas from land-grant colleges and the Department of Agriculture. Both have aided agriculture technology, production, and marketing through subsidies, land retirement, soil conservation and income support programs, water and irrigation programs and subsidies, research subsidies for mechanization studies and the use of agricultural chemicals, and market surveys and services, to name only a few.

The entire complex of land-grant colleges, agriculture experiment and research offices, and the extension service must be accountable to the entire rural constituency.

I fear that one reason that rural poverty persists is that while assistance to date has aided some agricultural interests, increased efficiency for some farmers and brought wealth to some in rural areas, others are programmatically, almost systematically, excluded from those benefits. Over half the farmers in the Nation have sales of under \$5,000 a year, and there are over 2.5 million farmworkers who lead a bare existence, and many others suffer under minimally acceptable living and working conditions. The result of our rural policies has been to force farmers out of markets, to change rural communities into ghost towns, and to force farmer and farmworker residents into big cities that do not want them and cannot accommodate them. The Subcommittee on Migratory Labor will study these issues. An understanding of them appears essential to attempts to legislate in the interest of all rural America, including the rural poor—the farmworker and the small farmer.

Mr. President, I ask unanimous consent that the article entitled "Keeping Them Down on the Cornell Farm" be printed in full at this point in the Record.

There being no objection, the article was ordered to be printed in the Record, as follows:

KEEPING THEM DOWN ON THE CORNELL FARM

(By Jim Hightower and Sarel Kandell)

(NOTE.—Mr. Hightower is co-director of the Agribusiness Accountability Project and Miss Kandell is deputy director of the Migrant Legal Action Program, Inc.)

Farm workers in this country have come to expect nothing more than misery and repression that is their daily lot. Edward R. Murrow documented all this back in 1960 with his classic television presentation, "Harvest of Shame." As one Florida grower put it then, "We used to own our slaves, now we just rent them."

Somebody at Cornell University must have thought that sounded like a reasonable scheme, for in the next year the University rented a bunch for itself. In the 10 years since, Cornell has done a pretty good job of keeping its farm workers down and out of sight.

To uncover this arrangement, one has to travel north out of Ithaca to Sodus, New York, and look hard into the gentle, orchard-covered countryside that extends from U.S. 104 to the shores of Lake Ontario. There, set discreetly behind

well-kept trees, is a 200-acre farm owned by Cornell University and operated by its College of Agriculture as a combination research facility and commercial farm. On this acreage, Cornell has produced apples, cherries, pears, prunes and human misery.

During the growing season (early June through November) the Cornell farm hires migrant farm workers. Over the years, about 50 workers—mostly black and Puerto Rican—have been coming up from their homes in the west-central area of Florida. They come up as a crew, recruited by Cornell through Charlie Taiten, a crew boss who has been coming to this area for 32 years. Federal law requires that a crew boss who recruits or transports workers interstate must be registered with the U.S. Department of Labor. Taiten is not. Once he delivers his crew to Cornell's farm, they are put in a migrant camp owned by Cornell and located on the farm. Dr. James Tobin, Medical Director of Wayne County health clinic, observed that "It is ironic that a humanitarian institution (he means Cornell) should run one of the worst camps in New York."

The Wayne County People's Coalition, which has compiled a survey of migrant conditions in Wayne County, found that there were two families in the Cornell camp who lived "in the worst conditions." The Coalition reported that "a family of 8 lived all season in 1½ rooms." Eleven persons lived in two rooms with only three beds—two of them single.

Last season, about 45 farm workers were housed in the Cornell hovels. Their walls were cracked and leaking, and they had only outdoor toilets, without heat or light. Nor was there a heating system in any of the main shelters, so the workers were forced to keep the gas burners on their cooking stoves going most of the day. This is a blatant fire hazard, made worse by the fact that the stoves are set between the bedroom and the only door in the shacks.

This is not innocent oversight. For years, Cornell officials have known what was going on, but they have yet to face up to it—in fact, Cornell deliberately has avoided its responsibilities.

Cornell acquired its farm in 1961, when Herman M. Cohn deeded the property to the University. Even before then, the College of Agriculture had been using the farm for agricultural experiments. Along with the land, the orchards, the farm buildings, and the migrant camp, Cornell also obtained title to the management services of Arthur Boller, who had managed the farm for Cohn. Until his death this year, Boller was retained by Cornell and paid a small salary for his services.

Even though its produce has been marketed, the Cornell farm has not been much of a money-maker. The real profit to Cornell has been the research and development made possible by the farm. In the Dean's 1969 annual report, the College of Agriculture notes this achievement: "Apple growers, faced with a diminishing supply of seasonal labor, were assisted in exploring various ways to mechanize operations to eliminate labor." Perhaps the Dean was too busy taking care of the labor needs of New York apple growers that he just could not take the time to care for the needs of his own laborers.

New York State Public Health Law requires the State Health Department to inspect and license migrant labor camps. Since 1961, the health officials have been coming around to the Cornell camp, citing violations, warning that their license was in danger, but always renewing. Throughout it all, Cornell did not make improvements in the camp—there still were no emergency exits; open flames still burned all day on the stove tops; and families still were packed together.

These miserable conditions first surfaced as an issue outside of the University in 1968. Late in the summer of that year, Paul Sanchez, who then was an organizer in Wayne County for the United Farm Workers Organizing Committee (UFWOC, AFL-CIO) determined that the only way conditions would be made better would be for the workers there to unionize. He telegraphed the president of Cornell, requesting recognition of UFWOC as the bargaining representative of the 52 workers then living in the camp. Diedrich Willers, Personnel Director of Cornell, responded for the University on September 10:

"Although Cornell University is the owner of the Cohn property, the University neither controls, manages, nor supervises the farm operation. Mr. Arthur Boller is solely responsible for the entire operation of the farm. Cornell University has no employees, I repeat, no employees of any kind at the Cohn farm."

What we have here is a classic example of agri-business wriggling on the hook. Of course Cornell has employees on the farm—there is Boller on their payroll, there is Charlie Taiten bringing up workers every year, and there are

the workers themselves. Who do all these people work for if not the institution that owns and profits from the farm? Nonetheless, Sanchez played the game and went to Boller, who said he would have to confer with his superiors at Cornell. Sanchez came back two weeks later, only to hear Boller firmly refuse UFWOC's request. Apparently buttressed by his conference with his superiors, Boller added that if "any of my workers start talking about that union, I'll put them on a bus and send them back home."

After the Sanchez telegram, Cornell officials feared public exposure and sought ways to alleviate any possible embarrassment. William F. Friedland, a professor in Cornell's School of Industrial and Labor Relations, who had been involved in a migrant labor project, was requested by the University to help it deal with their migrant camp problem. In the first discussions Friedland had with officials of Cornell and of the College of Agriculture, the officials wanted to talk only about "what Cornell might do to relieve itself of any onus attaching to being an employer of migrant workers."

The sessions continued into 1969, and Friedland finally was allowed to submit a research proposal to study the conditions of migrant workers in New York and to demonstrate means of self-help, using the Cornell farm as one of the demonstration sites. Friedland was given the go-ahead to implement his proposal, to begin in the summer of 1969. In June, he learned that his plan—costing a mere \$10,432—had been scuttled. In a letter to Arthur Peterson, comptroller of Cornell, Friedland wrote: "I can only conclude that the decision to abort the project stems from the traditional fears that the College of Agriculture has with its traditional clientele, the growers of New York State."

The people of New York have laid out a lot of tax money to allow Cornell to serve this clientele. In fiscal year 1960, the State made available \$25.5 million for the College of Agriculture. The federal government and private contributors chipped in to make the College a \$41 million operation. In this same fiscal year, the College dedicated an \$8.3 million departmental building and a \$4.5 million research, greenhouse and teaching facility. Yet, from this ample budget, the College was unwilling to shell out a meager \$10,432 that might have made the difference for their farm workers up at Sodus.

In their 82nd annual report to the governor and the legislature, submitted January 1, 1970, the College of Agriculture notes among its accomplishments the chartering of an airplane to give New York legislators a two-day tour of their agricultural installations on the Geneva and Ithaca campuses. It is no surprise that the legislators were not treated to a glimpse of the Sodus installation.

One potential official of New York State almost got a look at the Cornell camp, but officials took very special care to keep it out of sight. This happened in August of 1970, when Adam Wallinsky was conducting a highly-publicized tour of Wayne County camps as a part of his campaign to be attorney-general. On Lake Road, just off U.S. 104, there had been a sign at the farm, designating the property as a "Demonstration Orchard for Cornell University." According to Rev. Alex Brown, a Wayne County field representative for the AFL-CIO, the sign had been in good repair and, in fact, had been freshly painted. Just before Wallinsky made his rounds—perhaps the very day before—the sign was taken down. Wallinsky thus was not burdened with sight of the Cornell camp and Cornell thus was not burdened with the sting of Wallinsky's subsequent report on miserable migrant conditions in Wayne County labor camps. The sign has not been re-erected.

Since then, Cornell has had difficulty keeping its migrant labor camp from the public eye. Throughout 1970, Dr. James Tobin and his co-workers at the Wayne County Rural Comprehensive Health Clinic served workers in the Cornell camp and reported to state health authorities about conditions there.

"The trees are extremely well cared for, carefully pruned and tagged, it is deplorable that they have not shown half as much concern for people," Dr. Tobin later observed.

Late in the summer of 1970, the People's Coalition reported the findings of their survey. News of conditions began to get out of state. Nancy Mills of the Project on Corporate Responsibility, Jerry J. Berman of the Center for Community Change, and Larry Sherman of the Migrant Legal Action Program, received inquiries in Washington about Cornell, and they began to look into the story.

Things were moving on the Ithaca campus too. The University Senate, through its committee on Minority and Disadvantaged Interests, began to investigate

rumors about the camp late in 1970. Also, the *Cornell Daily Sun* sent its reporters around. Ironically, the farm worker issue was raised to a new level of awareness at Cornell on January 7, when the Senate voted 60-21 to support Cesar Chavez and UFWOC's lettuce boycott by requiring Cornell to purchase only UFWOC-label lettuce.

All of these developments gave Cornell officials the opportunity to make a break with the past and to take steps to meet their responsibilities at Sodas. They did not. In February of this year, a *Daily Sun* reporter raised the issue of the camp with Cornell's vice-president for public affairs, Stephen Muller. "I don't know a thing about it," Muller stated. On February 11, the *Daily Sun* broke the story.

With their secret out, it could have been hoped that Cornell officials might finally respond positively to the needs of their migrant workers. Again, they did not. Instead, they have decided simply to close the camp. "We're going to be the hell out of the thing," blurted Dean Charles Palm, of the College of Agriculture. And they were. On March 18, Cornell President Dale Corson met with two students, who had come to ask him to intervene in behalf of the farm workers. Not only did Corson turn down their plea for support, but he announced that the University already had acted—only hours before this session with the students, Cornell quietly has called in the bulldozers and levelled the camp. Out of sight, if not out of mind.

Talten's crew—most of whom have been coming up to Sodas for between 10 and 30 years, and all of whom need the work—no longer will be a Cornell problem. The University will try to recruit local workers, or they will mechanize the farm. Ironically, the latter scheme will cost a good deal more than Professor Friedland's original proposal. In any event, Cornell has dumped about 50 people and has refused any responsibility for where they might land. It is reported that, in a gush of conscience, the College of Agriculture momentarily considered sending a lump sum of money down to the Florida workers; sort of a token of the college's appreciation for their going away.

A 1906 Act by the New York legislature provides that "The object of said College of Agriculture shall be to . . . elevate the standards of living in the rural districts." For whom? The New York State College of Agriculture at Cornell University certainly is interested in elevating growers, but they are just as interested in keeping the farm workers down. From planting seed to marketing his produce, the New York grower can demand and expect assistance from the College of Agriculture. The farm worker, on the other hand, cannot expect that kind of assistance. If he demands improvement in his housing, he can expect to have no housing at all. And no job, either.

ORGANIZATION OF PERSONNEL TO FOCUS ON PROBLEMS.
OF RURAL DEVELOPMENT

R. L. Kohle, Purdue University

The question that has been posed for my subject-is how can we stimulate effective research activity which will improve the development and progress of our rural communities? As we break down this broad and important question there seems to be two aspects of the problem area: 1) how can we more effectively encourage researchers to attack relevant and important problems that occur as we pursue the general area of development and progress of our rural communities? and 2) what are these problems - what is their nature and their dimension?

The first of these is a people and people-management question. It centers around how we might organize to get the job done. The second, is a content question. The answers in this area will have to be evolved by competent people as they become interested in the problem. I am convinced this will occur if we appropriately come to grips with the first.

Let us turn to the first point, that is the people-development and the stimulative and facilitative organizational techniques that might be evolved. My comments are not made as a professional Agricultural Economist, but as rather an administrator who firmly believes the major role of any academic administrator whether he be dean, director of the Experiment Station, a department head, etc., is not just as a presider over consensus opinions that may arrive out of the faculty, but rather as one who must take a leadership role in catalyzing and stimulating the development of these ideas and opinions.

Our biggest assets in Agriculture are the institutions of the Experiment Station, and of the Cooperative Extension Service - as separate, viable organizational frameworks. To explore this point perhaps we need to step back into history.

It is important to recall that the Hatch Act did not simply fund research as one of the missions of the land-grant university. Rather it established, in each college "a department to be known and designated as an Agricultural Experiment Station" and the duty of such stations was "to conduct researches and verify experiments to solve problems of agricultural production and related issues".

It is also important to recognize the Smith-Lever Act did not simply fund adult education as one of the missions of the university. Rather it brought

into being a separate organization ^{that} ~~whose job~~ it was to act as the teaching and delivery system of research findings to those who were not on the college campuses, but who ^{live} ~~are~~ practitioners and users of the possible information that might develop on these campuses.

In both instances there were only vague references made to the teaching functions that are normally assigned to the university. In both instances the legislatures placed these two major organizational devices, the Experiment Station, and the Cooperative Extension Service, at the land-grant university under its jurisdiction, but in a semi-autonomous status. They were to be subject to federal coordination and direction, and they were to be under their own independent administrators, who were to be jointly approved by the university representing the State and by the federal government itself. As a sub-point it is perhaps wise to remind ourselves that this is probably the first and certainly most highly successful example of the revenue sharing and fund matching concept of different levels of government that we have. It has resulted in the effective joining of local direction and local problem identification, with the responsibility assigned at a national level to help give coordination, direction, and purpose.

In our early history these two organizations were characterized by a sharp delineation of their staffs. The School had its staff for teaching. The Experiment Station had its staff for research. The Extension Service had its staff to carry out its adult education duties. At Purdue, the Station and Extension staffs were not formally joined completely to the University and School staffs until after World War II. Many universities had buildings especially designed for their experiment stations and their laboratory. Early in this development, research personnel often reported to the same head as the school personnel. However, Extension Directors relinquished direct control of their staffs much more recently (and some have not done this yet).

Why should one develop this ancient history? I think it is useful to point out the present blurring of the functions of a university faculty as "teaching, research, and extension", the joint appointments of faculty into these missions, and the highly powerful and semi-autonomous units which are called departments are really developments of rather recent vintage in the Agricultural setup. This history is useful to remind ourselves that while we are joined at department levels, the Experiment Station Director is still responsible for the

performance of the research structure and the Extension Director is still responsible for the performance of the extension education program. It has also been demonstrated time and time again that both the federal and state governments use these institutional vehicles to direct the efforts of the research establishment and of the adult education establishment into what congress and the individual state legislatures view as important problems of the public interest. This, of course, has come about as we have had earmarked funds for specific purposes, and various legislatures have made appropriations to get certain activities done.

Now, I would like to turn to another thread of academia and its history. This concerns the growth and role of the department and of the discipline as major power blocks in our organization.

It is often stated that the keys to a truly great university are: 1) a faculty of competent, vigorous individuals, and 2) strong and competent department heads to administer this basic organization of a university. One often hears that the best run university is the one that assembles the most capable people and simply lets them devote their talents to things that interest them.

It must also be recognized that a major legitimatizing mechanism to evaluate faculty performance has developed that is external to the institution. This is made up of the many organizations that surround the disciplines and the professions. Each discipline and profession has its own national society. Many areas have developed accrediting agencies which determine whether or not an institution is pursuing the correct path. For many of our faculty the most important recognition may come external to their university from these groups.

All of the above comments concerning a modern, large university have elements of truth in them. Many of these developments that surround the academic freedom of the individual, and the power and autonomy of the departmental and disciplinary organizations are at least partially responsible for our educational success and progress as a nation. It must also be recognized however, that these developments are also responsible for at least part of the road blocks and difficulties which face universities and academia in general as they adapt and change to new dimensions. Some of the results simply have not been good. In addition, some of the statements and assumptions that have been made

above are not completely true.

We might look to several recent developments as indicating that the present structure is not without its problems. The complaints of our students in the last several years in many ways were protests against out-of-date and duplicatory courses and general academic neglect of the teaching function. Students, and others, have charged that faculty people, running their own shows, have become far too interested in pursuing their own interests and their own research devices with little attention to what they say is the primary mission of the university - mainly teaching students.

We must also acknowledge that on the public scene the clamor is for more direction, responsibility, and accountability in the general operations of academia. One notes the growth of coordinating super-boards in various states and the many national commissions who are identifying problems, legislative proposals, etc., to correct these alleged shortcomings.

The idea of doing what you please on the part of the faculty has often been followed "if you can find the money". Fundamentally, in this setting, the faculty could do as they pleased provided some granting agency agreed with them as to the area that they wish to pursue. Whether we like it or not, most granting agencies - whether federal granting agencies, private foundations, or private businesses have used their funds for a purpose. History demonstrates, I think, that in this atmosphere, most faculty are quite adept at coordinating their pleasures with the pleasures of the money sources.

Finally, I think it must be acknowledged that this "laissez-faire" philosophy has never been completely dominant in the Agricultural organization of the land-grant university. Both the Experiment Station and the Cooperative Service have vocal clientele, who clamor to ~~direct and~~ have some input into the nature of the programs that are to service them. Most states have found that certainly it is woe to that unit that decides to completely ignore these voices of our supporters, our users, and our interested clientele over long periods of time.

It is also important to note that additional money both at the state and federal level often has been appropriated into the research and extension structures with both purpose and earmarking of funds. One has to reach back only into the very recent past to remember the Agricultural Marketing Act and the designation of its funds for specific purposes. We may all remember,

with some degree of amusement, how in the early stages the Experiment Station Directors, and others, jumped through all sorts of definitional hoops so that they might use these monies just to simply support the programs that were ongoing at the ^{present} ~~present~~ time. The real challenge was to define the marketing purpose in such a way that things we were doing fell in ~~the~~ ⁱⁿ category. However, in spite of this ⁱⁿ time change did occur in most universities to give more research emphasis to marketing problems.

We might also ask some rather critical questions about the academic department. In large segments of the university, departments are synonymous with disciplines. An example of this occurs in English, History, Chemistry, Physics, etc. These departments can easily wrap the protective cloak of disciplinary power around them in their behavior. However, this discipline - department arrangement in Agriculture is at best a tenuous one. One has to merely survey the organizational charts of Agricultural colleges around the country to recognize how diverse we are in this regard. For example, at Purdue we have one department of Animal Sciences. However, at another major school, covering this same area, exists the departments of Animal Science, Dairy Science, Food and Dairy Industry, Genetics, and Poultry Science. At Purdue we have departments of Horticulture, Agronomy, and Botany and Plant Pathology. These basic disciplinary areas and mission areas at some other universities may be organized into departments of Pomology, Vegetable Crops, Floriculture and Ornamental Horticulture, Crop Science, Botany, Genetics, and Soil Science.

We must not get caught in the trap of letting policies of protecting and supporting disciplines be twisted into a rationale for supporting the organizational status quo. At Purdue, we have chosen the organizational route of a few, but large, departmental units. There are nine of these departmental units of which at least seven house a collection of disciplinary orientations and allegiance. Other universities have chosen the route of having many departments more narrowly defined. The important point is that the department is an organizational unit for getting a job done. The discipline defines a conceptual area of attention. A department may have within it several disciplinary groups that are dedicated to a single mission or problem area.

Now, we can return to the issue that we started to discuss - namely how should we organize in gaining increased attention to Community and Rural

Development. I suggest the question is not whether the School, Experiment Station, and Extension Service will accept the challenge of this mission and problem area, but rather how will the challenge be accepted.

What is Community and Rural Development? Is it a new discipline that has simply not been fully developed? Or is it a special mission area in which many disciplines will have to be involved? Dr. Bryce Ratchford, who has considered this area rather extensively from many viewpoints has stated on one occasion that development is about as broad as the total concerns of man, but at another point he also stated that community development is a new profession. Some institutions have established new departments to administer this thrust. A professional Society of Community Development has been born. It has its own journal and is developing its own disciplinary paraphernalia. I recently studied the contributions to this new journal. They included offerings from people who were trained as educational psychologists, sociologists, anthropologists, agricultural economists, consumer economists, lawyers, business management, and political scientists.

What is the content of this problem area? What are its research problems? From my viewpoint at the present time, I think the best policy is to say "we are not sure". Having made this kind of statement, however, we should recognize that this should not be limiting to effective action. When economics broke off from political economy, or when agricultural economics broke off from economics itself, the people that were involved in these initial ventures did not know precisely the dimension of the field which they were claiming as a new discipline. The birth of many of our "agricultural disciplines" was born not from a specific dimension of an academic area - but from a concern over a problem and a mission which was not being well handled under old disciplinary structures.

In this regard, I think the most important action is for Deans, Directors of Experiment Stations and Extension Services, and other leaders of our faculty to make the visible decision that Rural Community Development is an area of high concern and importance to rural people, and that evolving national policy will make it a valid mission for our teaching, research, and extension attention.

Once this commitment is made, we must be prepared to take academic actions which involve risk. We must be prepared to make allocation decisions

as the opportunity arises to bring resources to bear on this mission. We cannot logically take the position that we will move only if given more money to do this specific job. Obviously, this is the easiest route and we all hope that additional resources will be available. However, if we do receive money to strengthen our commitment to this area, we cannot again play the old game of redefining development so we can support in a better fashion just what we are doing now. It is an unescapable conclusion that to undertake this as a mission problem of high priority means that in most of our institutions, some redirection and reallocation of personnel and resources is necessary.

What organizational approaches are in order? This, is a pragmatic question which must be answered in the framework of history and structure of each institution. If the history and structure of the institution is one of many small and changing departments, each with a rather specific and rather narrow mission, then perhaps a new departmental organization is in order. If the structure and history is one of large multi-mission and multi-disciplinary units, adjustments may be needed within that framework. If the history of the institution is one that widely utilizes, institutes and other non-departmental devices for handling specific problems, then this may be the route.

Any move that is made, however, must combine the authority and responsibility of the possible teaching, research, and extension functions. I have little faith in separate research institutes that do not include consideration of the other two missions. There are curricula and educational efforts which must be developed, if this is to move forward. We also will need field agents in our extension services and these people will need special training. In the present setting, I think it is of prime importance that extension and research personnel be kept closely together at this stage of uncertainty. Communication and inter-play must be close. Perhaps, in more instances than not, these functions should be combined within the same person. In most of our states community development extension activities and concern are further developed than research.

In research, it would seem to be extremely important that we undertake a program of carefully chosen efforts. Like so many other areas when they initially are undertaken it is so easy for researchers to simply become the fire brigade to put out the fires that extension brings to them. If all of our

research talents are utilized on ad hoc problems, we cannot begin to develop a systematic body of knowledge that is of predictive and future importance. It is, of course, of extreme importance that researchers acknowledge the major problems that extension faces, and that they take this into concern as they plan their efforts.

As an example, and certainly not as a model, I will outline what we are attempting at Purdue. It should be remembered that here we have a philosophy of few and large multi-disciplinary departments. The office of Program Director of Rural ^{Community} Development has been established. This office has been put in charge of the development of teaching, research, and extension functions that surround this problem area as they pertain to Agriculture. Faculty have volunteered to the program if their interests are involved. They are appointed, specifically, to the Rural ^{Community} Development Program faculty, but retain their basic appointments in their home department. The faculty currently includes local government and community oriented people from Agricultural Economics, Landscape Architecture, planners, land use and land engineering people from Agronomy and Agricultural Engineering, recreation and natural resource people from Forestry, and youth people from 4-H.

The program leader and this faculty is empowered to act like a department in matters of curricula, research, and extension program planning, and relationships with the field staff. I depend upon this faculty and the program director to determine the general specifications for needed new personnel and to identify into which department and discipline they best belong. We have recently added two sociologists and a social psychologist into the Department of Agricultural Economics. This faculty seminars among itself, has its own committee structure, and seeks grants according to the programs, and has its own small budget for travel, speakers, etc.

Basically, it is intended that at the present time the personnel and research support will flow back through the best related department structure. However, I do have the authority, and will appoint people directly into the program faculty if the cooperation breaks down in needed areas. This program structure is one of three that we have in Agriculture. Food Science, and Environmental Science and Natural Resources are two other such cross-departmental program faculties that we have in place.

Will it work? Must it evolve into a department sometime in the future? Only time will tell. The departments, themselves, are giving cooperation in the various degrees. In order to enhance the ability of these program faculties to deal with their problems, I insist upon input from program faculties and the director in the allocation of resources, promotion of personnel, and other administrative devices that are on-going.

Frankly, I find that individual faculty are interested and receptive to tackling new and important problems. They are reluctant to have to fight their home department and all of the academic bureaucracy in order to do it. Certainly, one of the challenges of administration must be to make this conflict minimal. One student of a university organization called for strategy of planned flexibility which can gain flexibility without destroying the positive contributions and security provided by department and college structures. The program director approach is an attempt to do just this.

The mechanics and details of approaches will differ among institutions - they should. But, the key to progress remains the same - leadership must take the position strongly. This position is that the area of Rural Community Development is a problem, and it is a mission area that is important to the Agricultural complex; we belong in the area with our teaching, research, and extension activities and we should devote resources to it.

Though it is quite true that some people wish no change to upset their domain, I do not believe that this is a widespread condition of our faculties. There is a sizeable number of faculty - perhaps the majority, who can and want to participate in new directions and new activities. The challenge is to capitalize on and utilize this latter group and not be immobilized in our thoughts and actions by the former group.

If we recognize this mission as an important one, and we facilitate good people to give it attention, I basically believe that good and useful research will be forthcoming. We should not be hindered by the possibility that all the necessary talent may not reside within Agriculture on our various campuses. First, we should move creatively with what we have. I then feel sure that cooperation with other disciplines and other areas will be forthcoming when we

become a growing concern with purpose and direction. On the opposite side of the coin, I do not believe we should be over-enthused about diverting our resources into other areas of the university without some specific pre-arrangements. One unique dimension of Agriculture is its mission orientation and the protection of this mission through the Experiment Station and the Cooperative Extension Service. This type of dedication and organization is not widely duplicated throughout the total campus. If we are to receive further resources for pursuing this area we will be held accountable for their use. It becomes especially important that our concern be focused at present time on the farmer, his community, and the total well-being of rural America.

Finally, I would suggest that we certainly cannot await the complete consensus of everyone concerning the importance of the problem, its dimensions, and its orientation before we move. To await such complete consensus in any major new, or innovative area, is a major way to stifle change.

TIDES OF NATIONAL DEVELOPMENT:

King Canute and the Rural-Urban Balance

By Lauren Soth

Theodore W. Schultz a couple decades ago invented an imaginative expression to dramatize an imaginative rural policy proposal. He advocated a program he called Homesteads in Reverse. Schultz suggested that the federal government offer farm families a cash payment to leave farming and help them get started in city life and non-farm work.

I have always thought that was a concept of real genius. The slogan Homesteads in Reverse gave a flash perception of the problem of too many people dependent on farming and conjured up the good image of the Homestead Program of the Nineteenth Century.

In writing this paper, I benefited from criticism and suggestions by Walter W. Wilcox and Robert K. Buck.

Americans are deeply and rightly proud of the homestead idea; it is one of the things we did as a young nation which seemed to epitomize our devotion to democracy and equal opportunity--our independence, our belief in the virtue of work, our determination to conquer the wilderness. By means of government incentives, we moved people onto the new lands, boosted the national economy and fostered better population distribution.

Ted Schultz asked, in effect, why not do this great thing again, only in the other direction? Why not use the powers of this people's government as we did once before to turn the tides of population movement, to plan a better future? This cannot be socialistic or unAmerican or subversive of free enterprise--it is true to the very soul of America.

Schultz was thinking two decades ago primarily of commercial agriculture's proclivity to over^{production}~~population~~. He even suggested that to be eligible for his proposed \$5,000 subsidy for getting out of farming a family would have to give evidence that they had produced and sold at least \$2,500 worth of farm products the preceding year. (Those figures, incidentally, remind us of the enormous changes in commercial agriculture in the last 20 years--and of the inflation.) Rural problems were seen then largely in terms of the commercial farm problem--too many people sharing the national farm income; farm surpluses; low prices of farm products.

Lately, racial tensions, crime, pollution, bad housing, poor transportation and other problems of the cities have stirred new thinking about the tides of population movement and of economic development. Now politicians are talking about reversing the homesteaders once again--back to the countryside, away from the corruption of urban life.

King Canute didn't have much luck trying to turn the tides, and our national experience shows that human tides are not easy to turn, either. The homestead policy was really just a new name with slightly more orderly administration and slightly bigger subsidies for a policy of populating the rural areas that began in 1776. It undoubtedly spurred the development of the continent, attracted people from America's eastern cities and from abroad. It worked.

But shortly after the Civil War and while the Homestead Program was in full flower the nation began to carry out a parallel developmental policy which soon began to turn the tide back to the cities. This was the support of agricultural research and education, the policy of creating new technology and putting it to use rapidly. It was government run and government financed, and it was regarded as the essence of capitalistic free enterprise--and still is so regarded.

This public agricultural development policy probably has been the most popular and the most successful--in one sense--of any policy of social and economic development this country ever had. By comparison, the protective tariff and the antitrust laws and commissions have been puny efforts, indeed.

The Land Grant college, with its agricultural experiment station and extension service, has been superbly well financed. There might be some disagreement with that generality in these precincts. But I never heard of any enterprise, public or private, whose manager did not think it was underfunded; I'll stand by that remark about public support for agricultural education. Agricultural research and extension have had no political enemies, only friends, really a unique political situation.

Urban people in America generally have been rural-minded, although farm people in their paranoid moods don't think so. The city people of this country know about the open countryside. They remember their own lives on the farm. They are highly mobile, with all their automobiles, and they drive regularly into rural areas. They believe the propaganda about the virtues of country life. They want to do something to help country people. That is why they have been ready to pitch in and pay taxes to support farm programs.

The generous public support for research and education and other governmental programs for agriculture has made these programs operate as Homesteads in Reverse, moving a great many people off the farms.

Practically all this governmental activity in farming was intended to do the opposite. It aimed to keep people in farming. President Theodore Roosevelt's Country Life Commission early in this century upheld the values of rural living, continuing a political and governmental theme going back to Washington and Jefferson. The 4-H Clubs and the Future Farmers of America organization, developed to aid the agricultural education movement, have been tuned to the theme of the superiority of life in farming areas as compared with urban, industrial areas.

One of the driving forces of the American government since its beginning has been to make a new deal of farm life in the new world. The Founding Fathers and their successors in high government position have sought to make American agriculture a new kind of agriculture, in contrast with peasant farming in the rest of the world. Rural people were to be educated, have the privileges, the social status, the good things of life of city people.

This is not the time to go into the complicated reasons for America's agricultural development policy and the motivations behind this policy. Let me digress for a moment, however, to point out that ^{all} the motivations were not noble.

In the last half of the Nineteenth Century, conservative business interests, alarmed by such farm radicals as James Baird Weaver of Iowa and William Jennings Bryan of Nebraska, wanted to pacify rural areas.

Private and public funds were raised for rural education and increased farm productivity. To the rising industrial leaders of the country, and their political groupings, large expenditures for farm education and research were far better than radical Greenback money policies, inflation farm strikes and attacks on the railroads and the industrial trusts.

These business interests wanted more farm output and cheap food. They wanted cheap labor. A generous program of aid to agriculture contributed strongly to these ends.

Let us agree here that the main motives behind the Land Grant movement and the push for agricultural education were indeed noble and for the best ends of farm people and the nation. And it did make good economic development policy in the last half of the Nineteenth and the first half of the Twentieth Century.

But "the best laid schemes o' mice and men gang aft a-gley." The agricultural research and education policies and programs, which were designed to make rural life happy and raise the level of farmers to the levels of professional and business classes, actually have made rural life less attractive to many.

The heavy injection of new technology into agriculture and new capital to support the technology have created classes and levels in rural America. Instead of developing a classless rural society the programs have tended to create inequality where equality existed before.

Many of us can remember in our own personal family histories the high degree of equality in the early pioneer days of Iowa. Of course there were the rich and the poor, as always. However, I venture to say that if accurate statistics could be developed, we would find a much narrower range of income and wealth in rural Iowa in, say, 1870 than in 1970. There was a social opprobrium against land grabbing or undue increases in wealth. When the ^{new} homesteads were being developed, farmers sometimes took the law into their own hands to prevent land grabbers or speculators from seizing large areas. There are many stories of early pioneers selling land at very low prices to entice other new^wcomers, so they would have neighbors. There was a kind of sharing the wealth which, I believe, was the mood of American rural development in those days.

Agricultural research and education through the federal and state governments, and supported by business interests, especially those connected with agriculture, has been geared to efficiency rather than to equality. In fact, it has been geared in many cases to favoritism for special groups. The better farmers were aided more and helped to become still further advanced over those of lesser ability or lesser access to capital. Farmers who were conservative, not troublemakers, had advantages in getting aid from the colleges and from USDA.

II

In our agricultural development policy and farm support policies, we have found our goals to be in conflict. The main goal has been to create a pleasant, advanced, high-income rural life for many, to give farm people the same standard and level of living as city people. Another goal, as well as a means to the main goal, has been to raise the educational level and increase the productivity of people in farming. But the results of pursuing the latter have tended, increasingly, to be the opposite of the former.

Let me restate the main goal: a farm citizenry of independence, free, land owning, bulwark of democracy--equal in every way with the non-farming classes in worldly goods and cultural advantages--but retaining the special virtues of life close to God and nature in the country.

Results: depletion of farm population and rural culture being replaced by urban culture in the countryside.

Even the goal of equality of income has not been reached.

Farm people on the average have gained on city people in economic income, so far as the estimates of the federal government show. But these averages disguise a widening disparity ^{among farmers}. The Department of Agriculture studies have shown that a small, top group of farm operators has indeed reached "parity" of income with non-farm people. But at least two-thirds of the farming population lag behind.

The customary way to compare the well-being of rural and non-rural people is to use the per capita income averages computed by the Department of Commerce and the Department of Agriculture.

This method of comparison has been used to justify farm programs for many years, and the current secretary of agriculture has been doing it again. These average figures are deceptive, because of the great diversity in the farming population, ranging from full commercial farmers down to various kinds of part-time farmers, residential farmers and the poverty group. ^{They} hide the fact that the people living on the best farms, say 800,000 leading commercial farm families, are realizing full parity of income compared with city people.

If you look at this group alone, you can conclude that governmental activity has been remarkably successful in producing well-being for the farming population. The trouble is that the rural population as a whole has been shorted.

A new study by the Economic Research Service of USDA for the Senate Committee on Government Operations makes this clear. The researchers examined 252 federal programs, comprising 75 per cent of all federal outlays, to see where the money flowed. Non-metropolitan areas have received about 27 per cent of all outlays, though they account for 30 per cent of the total population. More important than this small difference, however, is the fact that rural areas fall behind in programs dealing with human welfare.

Per capita federal welfare payments have been roughly four times greater in metropolitan than in non-metropolitan counties.

Per capita outlays for health services in recent years were four times greater in metropolitan counties, and per capita federal outlays for manpower training and development were three times greater in metropolitan counties. Despite a greater incidence of substandard housing in non-metropolitan counties, per capita federal housing outlays were only half as large in non-metropolitan counties as in the metropolitan counties.

Though rural areas account for about half of all children between the ages of six to 17 in families with income below the poverty level, these areas received only 41 per cent of the outlays for the special education programs for such children. These areas received only 36 per cent of the Head Start and Head Start Follow-Through funds, 24 per cent of the Aid to Families with Dependent Children funds and 20 per cent of all child welfare service funds.

It is, of course, true that federal spending for the agricultural business and for natural resources is concentrated in rural counties, but it also is concentrated in the hands of the well-to-do farm families. It is fair to say, I think, that in spite of the great drive in America for agricultural education, rural areas as a whole have not benefited from public education as much as city areas. The largest portion of the farming population has not been able to profit from the new technology, the services of the Land Grant colleges and, on the whole, not from the various agricultural subsidies, credit aids and other programs designed to help farming people.

Many people leaving farms have adjusted well, but they have had to shift for themselves. There have been few Homesteads-in-Reverse payments. They have had to bear much of the social cost of the government-sponsored technological revolution in agriculture.

The national population as a whole has received the major benefit from agricultural programs of all kinds, through lower food costs and through cheap labor made available from the farming areas.

The benefit to society as a whole no doubt justifies all the public effort in agricultural education and research. What is not justifiable is the fact that the largest share of the farming population itself and of people in small towns in rural areas have not been helped and even have suffered from this program of agricultural development.

What also is not justified is the hypocrisy of the agricultural establishment in promoting new technology. The sellers of the new technology and the new materials to go with it continue to tell both farming and non-farming public that their efforts are for the farmer's benefit.

In the beginning, there was no hypocrisy. But in the last 35 years or so, there has been no doubt about the incidence of the farm programs. Yet our Land Grant universities continue to talk the old line. This is the thrust of their propaganda and of the USDA propaganda. I am not revealing anything new. We all know this is true and have known it for many years.

I don't want to be misunderstood as accusing the agricultural establishment, or the professional fraternity of agriculturists, of deliberately distorting the various federal and state programs for farm people. In a sense, they are victims of the system, too. They are, each of them in their professional capacities, doing what the public through government has directed them to do.

Each agricultural specialty--and the division of labor becomes more refined as the economy becomes more complex--goes ahead doing its job well. Each specialist can comfort himself that it is not his responsibility to consider the total consequences. He tries to enhance his own field, leaving to some higher authority the setting of priorities and of proportions.

At the top, even, in Congress and the Executive branch, who takes the overview? Who really sees the big picture? Like Tolstoy's generals in War and Peace, the leaders pretend they know the causes and effects, but in actuality, the machine of technology rolls on unguided and uncontrolled. The individual person--scientist, technologist, farmer, agri-businessman, rural dweller--is a robot, unable to do anything but go along.

The alienated man of modern society is not just an urban industrial worker, a spoke in a cog of a big corporation or a government bureaucrat. He may also be a farmer, professional agriculturist or other rural denizen who feels unable to act independently and who is driven by forces he does not comprehend.

No group of professionals has been more dedicated or upheld a higher code of honor than the agricultural professionals--and I include those in agri-business, the ag colleges, the farm organization, the farm co-ops and the USDA. But, like any such company of professionals, they tend to become more concerned with their professions and their institutions than with the mass of people they are trying to serve.

The agricultural establishment, mainly the Land Grant ag colleges and the Soil Conservation Service, have performed splendidly in teaching the best farmers how to control soil erosion and hold water on the land. But these agencies have provided little or no leadership for agriculture or for the country as a whole in protecting the environment.

It is regrettable that now that non-agricultural scientists have begun to alert the country about the dangers of environmental pollution, some of the agricultural fraternity even resist the movement and pooh-poo the danger. Have they become so accustomed to acting as servants for the upper crust of commercial agriculture that they are unable to respond to the demands of environmental protection now? As in any popular movement, there is exaggeration, emotionalism and distortion in the environmental movement. But it is wrong to ignore it.

Why is it that so few of the young people being educated in the agricultural sciences and in agricultural economics are enlisting in the service of the poor people in agriculture and in the environmental crusade?

Many young lawyers these days are going into public service law offices, such as the Nader group. But I have not heard of any agricultural economists, agronomists, animal nutritionists or others in the agricultural disciplines who are similarly trying to move into areas of social need. Why is this? Is it the atmosphere of the Land Grant agricultural college or what?

Any professional establishment stands against outside critics for the good of the establishment. The Land Grant universities, in the name of the good of the Land Grant religious order*, take what money they can get from whatever sources and use it the way those sources want it used. They justify misdirection of scientific resources on the ground that they must "keep a staff together." They must not offend their true allies in agri-business and the farm organizations who stand up for them in Congress and the legislatures to get money.

It is high time for us to examine and reexamine the consequences of this agricultural education, research, farm-aid machine and what it is doing to the ideals of equality and fairness which were the basis for starting the whole ball rolling.

* The Land Grant system is not unique in this. America as a whole has made a religious faith of science and technology as the way to the good life.

III

Now there is much talk of reversing the homestead policy once again, as I said earlier, to revert to the original homestead policy--repopulate the countryside, spread out from the congested cities. Get away from the riot-torn, corrupt, crime-ridden cities and establish a better rural-urban balance.

That being the new goal, what does it mean so far as agricultural education and other agricultural aid programs are concerned?

Another recent ERS study, titled "Rural-Urban Population, Income and Employment: A Simulation of Alternative Futures", projects present trends of population and concludes that--surprise!--if more people are to be kept in rural areas, more jobs are needed in those areas. The researcher^{the} said, "A virtual doubling of rural economy's capacity to absorb idle workers would be necessary to bring rural and urban per capita incomes...into balance by the year 2000."

One of the conventional proposals for rural development is building employment centers in key cities for commuting people from farms and small towns nearby. However, there are large areas of rural America where little commuting takes place and where little is likely. There is not a single commuter county* in the states of North Dakota, Montana, Wyoming, Nevada and Arizona. South Dakota has only two and Nebraska only three.

* Defined as a county where 10 per cent or more of the workers commuted to jobs in urban employment centers.

Unpublished data calculated by the Economic Research Service indicate that there are about 1,700 counties in the United States beyond commuting range of urban employment centers.

In 1970, the population of the country was just over 203 million. About 82 per cent of the population lived in 800 principal employment center counties, and another 6 per cent lived in 570 commuter counties. The 1,700 counties beyond commuting range had a population of 24 million or 12 per cent of the U.S. total. These counties with 12 per cent of the nation's population had 24 per cent of the nation's poverty and 21 per cent of the nation's overcrowded or inadequate housing, as measured by the federal yardsticks.

The conclusion which I draw from this is that commuting to work in urban employment centers is not a feasible option in a great many areas and not as feasible as had been supposed by many students of rural development. The ERS study indicates a considerably larger share of the total population beyond commuting range (12 per cent) than had been estimated earlier.

Obviously, the types of programs that are most needed in these areas are not those concentrating on "growth centers", because these areas don't have any centers to build up. In these noncommuting counties, the community structure is falling apart, and new governmental institutions must be developed.

In short, establishing new non-farm industry in rural areas is far from a complete answer for rural development.

Should we not consider other possibilities, as well? Perhaps we should consider that our allocation of education and research funds has been distorted. There is nothing sacred about the proportions of public funds going into agricultural research and education. What about a deliberate slow-down in new farming technology? This would be a policy of de-emphasizing labor-saving technology and deliberately encouraging more use of labor in farming--with emphasis on quality of production and the preservation of the natural environment.

That is heresy, I know. It is "regressive". It would raise the cost of food for consumers; it would reduce labor efficiency. But it would reverse the Homestead's in Reverse policy. It would increase jobs in rural areas. It would keep more people in the country.

All our measures for rural development will be a shambles if we also continue our crash programs for developing and disseminating new technology. In another two decades, at the rate we are going now, there will be only 400 or 500 farms in each Iowa county. You can't reverse the tides of population under those circumstances.

Perhaps we should consider the thought that the "overhead professional establishment" of our agricultural industry is overgrown. Instead of trying to expand this area continually, while the farming population is being depleted, perhaps we should think about holding back. Instead of asking for more money for agricultural programs of various kinds, most of which seem to go to a fringe of the best farmers,

perhaps we should talk about reversing the flow of federal funds for other purposes--elementary education, general education, welfare programs, housing for both farm and non-farm people in rural areas. Perhaps we need more research in education in non-farm technology applicable to thinly populated areas, along with much greater emphasis on the social sciences and economic planning for these areas.

Let us also consider whether strict anti-pollution and environmental protection efforts would help decentralize the cities. Instead of plowing more funds into programs that increase agricultural production and increase efficiency of labor in agriculture, why not emphasize development of a self-sustaining agriculture with tight controls over the uses of our natural resources? Taxation of chemicals used in farming could be a powerful instrument here. Earl Heady's new computer model for land and water use will surely be a great contribution to knowledge here.

Finally, perhaps we should consider the question of size of farming and non-farming enterprises. So long as our national goal has been to increase efficiency of labor at all costs, you could not make a convincing argument for limits on farm size or strict anti-trust enforcement. But now that we are beginning to think more of the wastage of the environment and of the problem of population congestion, maybe it is time to think about something other than short-run economic efficiency in the ordering of our economic and social system.

Some economists may protest that these suggestions are uneconomic--and that, everybody knows, is a heinous crime. But I will dispute that. Economics is the science of economizing on the use of scarce resources to maximize output of a desired product. I maintain that we have not been economizing when we do not include the costs to rural communities and to the large cities of denuding the countryside and of using the environment on a sustaining basis. I also maintain that the desired product is not necessarily just money income or consumable goods in the conventional sense. Some other "products" are gaining higher status, and economists must look to them.

This is really radical doctrine. At least it sounds radical to all of us who have been brought up on the idea of efficiency, efficiency, efficiency, more output per man. But is it so radical? If the kinds of technology we emphasize now are not producing the results we want, then the emphasis can be changed--assuming we are the masters of our fate. I so assume.

Statement by Jerry B. Waters
 Conference on Research Priorities in Rural Development
 North Central Regional Center for Rural Development
 Illinois Beach State Lodge, Chicago
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SCOPE AND NATIONAL CONCERNS
 UNDERLYING THE INCREASED EMPHASIS ON
 RURAL DEVELOPMENT

I presume that part of my task this morning is to try to convey to you something of the Washington view of rural development. I am pleased to have the opportunity to do so but am quick to add that there seldom is over any single Washington point of view on any given issue.

I am an advocate of rural development and a part-time participant in the rural development movement through my work as an employee of Senator James E. Pearson, one of the Senate's leading spokesmen for the rural development cause.

But I am also a student of the political process and it is that role which I have tried to assume in preparing this paper.

Certainly there has been a great deal of talk about rural development in Washington over the past few years. And while there has been more talk than action, certain steps have been taken, the most recent and most notable being the Rural Development Act of 1972. The Senate and the House have each passed their own versions of this legislation and a conference committee is now proceeding to mold these two versions into a single, acceptable bill.

This Act in its final version will not be a revolutionary piece of legislation, but it most certainly will be a significant one. I will come back to this bill later but suffice it to say here that it should be seen not as a capstone but as a stepping stone to further legislative advances in the future.

The program description I received stated that I would provide a definition of rural development. Terms used in public policy and politics are often very slippery, very hard to define with precision because those who mouth them do so with so many different motivations.

Certainly, this is true in the case of rural development and, to get at an understanding of it, we must have some appreciation of the context out of which it came into vogue.

To begin with, it is particularly appropriate before an audience such as this to ask: Is rural development, in fact, really something new? Or is it simply an old idea recently resurrected by new people?

I know that some people in the Land Grant university system tend toward the latter view -- that it is an old idea newly redecorated. In the Department of Agriculture, many of those people who have worked in the old Rural Area Development Agency and its predecessor and successor programs as well as those who have been associated with the Rural Electric Administration and the Farmers Home Administration take this view. And indeed, the speech title assigned to me, "Scope and National Concerns Underlying the Increased Emphasis on Rural Development", seems to imply this view.

But I believe this point of view exaggerates what has been done or was tried to be done in the past and underestimates the scope and meaning of what today's advocates are striving for and why they are pushing for it.

There is, of course, a continuation of the old here. But there is much that is new.

Today's rural development is new because the term 'rural' does not mean rural in the old sense of farm and village. Its meaning has been escalated. Beginning in the Johnson Administration and continued in the Nixon Administration, rural, for administrative purposes, is equated with non-metropolitan America; that is, everything outside the cities of 50,000 or over and the surrounding territory which has a population density of 100 or more persons per square mile. With certain exceptions, this is everything outside the Standard Metropolitan Statistical Areas.

This definition encompasses most of the country's geography and about 30 percent of its people.

This definition has been used in most rural development legislation introduced in Congress. It is the definition used in the Administration's rural revenue sharing bill and in the Senate version of the Rural Development Act. The House, however, defined rural as communities of under 5,000. How the conferees resolve this will be of considerable significance.

Today's rural development is new because it is no longer synonymous with poverty and depressed areas. The Rural Development Act of 1972 defines areas of eligibility by population numbers, not by the numbers of dollars earned by that population. This is one reason why the current rural development movement should not be seen as simply an extension of the old Rural Area Development program, the Economic Development Administration, and the Appalachian Regional Commission.

This is not to say that the current rural development is unconcerned with poverty but rather that it is concerned with much more.

Today's rural development is new because its objective is improved conditions in all of rural America so that more people will have the opportunity to remain there. Thus, it differs from some of the older efforts which in many respects seemed to be aimed more at preparing people to leave the rural areas.

Today's rural development movement is new in the sense that it challenges the notion that massive urbanization is somehow dictated by ironclad laws of economics which must and should not be tampered with.

How is it then that this view of rural development came into being? How did the current rural development movement get started? What forces triggered this out-pouring of precepts from Washington politicians about the desirability and indeed the necessity of a national commitment to rural development?

The National Dialogue

In a certain sense, the current rural development movement had its beginnings in the fires of Watts in August, 1965.

The early efforts to explain Watts emphasized that the rioters were primarily newly-arrived Southern migrants demoralized and eventually terrorized by this new urban environment. No matter that later studies revealed that most of the rioters were older residents, a spark had been ignited and for the first time since the 1930's, the country began to take a serious look at the question of rural to urban migration. Calvin Beale of the Department of Agriculture came up with a revealing statistic that requests to the Department's Population Studies Group for rural to urban migration data increased by 250 percent between 1964 and 1968.¹

During this same period, partly because of Watts and the three long, hot summers that followed, partly because of New York City's widely heralded "slide toward chaos",² partly because of electrical brown-outs, and partly because of a crystallization of our awareness of the seriousness of urban pollution, the nation was forced to take a new, hard look at the conditions of the cities. And in this reexamination we came to realize that the problems were much worse and a great deal more pervasive than we had earlier believed and that the problems extended far beyond the black ghettos.

We had known, of course, for a good number of years that our cities were in trouble. And we had responded, many would say only half-heartedly, with the infusion of billions for housing, water and sewers and urban renewal.

But after this very considerable effort, the cities were clearly worse off than ever before. Their air was increasingly polluted, the sources of their water supplies contaminated, their traffic all the more snarled, their crime rates higher, their welfare rolls ever larger. And virtually every big city mayor was proclaiming his city on the verge of bankruptcy.

In the fall and winter of 1966, Senator Ribicoff along with Senators Kennedy and Javits, conducted an extensive and unusually highly publicized set of hearings on the problems of the cities. The most memorable feature of that long recital of urban woes was the suggestion that if we were really serious about solving the urban problem the price tag would be an additional trillion dollars over the next ten years.³

This may have been a reasonably accurate projection of what was needed but there was no stampede to increase taxes and raise the federal budget accordingly.

This was so partly because there was no agreement on how the money should be spent even if sums of that magnitude were available. But it was so also because there was a growing sense that money alone would not cure the urban sickness.

Thus, during the last half of the sixties, the "crises of the cities" became a commonplace term in the national dialogue. And many a journalist and politician asked, only half rhetorically: Can our cities survive?

Out of this massive public soul searching, a new notion began to take hold -- quite possibly one of the most significant new ideas of the post-World War II period. There was a dawning recognition that the gigantic problems of the cities were an inevitable residue of a helter skelter urbanization. This was more than simply a realization that we had failed miserably to plan our cities properly. It was a recognition that a great imbalance was developing in the spatial distribution of our people, a growing belief that many of our social, economic, and political ills were the result of our big cities being too darn big.

Orville Freeman, Secretary of Agriculture, who had been urging a policy of rural-urban balance for several years now found that he had an audience. Papers like the Washington Post, which had long since forgotten there was a rural America, began to praise the Secretary for his vision.

A number of people in the Congress began to propose that the economic development of our rural areas was one of the best ways to ease the burdens of the cities. Senator Pearson in introducing his Rural Job Development Act of 1967 put it this way:

In our efforts to deal with the crisis of the cities we have come to realize that the challenge is not simply to make them more efficient and livable for more and more people, but how to keep more and more people from crowding into them. For we are beginning to recognize that the cause of many of the problems which now plague our cities can be traced to the overcrowding of people and excessive concentration of industry.

Beginning in 1966 and continuing through to the present an increasing number of Senate and House members have called for programs of rural development in order to slow the tide of migrants to the already overcrowded and overburdened cities.

And outside the Congress, we have seen an impressive number of endorsements of the notion that we ought to try to curb the rural out-migration.

President Johnson's National Advisory Commission on Civil Disorders pointed to the need to slow the tide of the rural poor to the urban ghettos. His Commission on Rural Poverty pointed out that the ghettos could never be substantially improved if the rural poor kept moving into them. In 1968, the Advisory Commission on Intergovernmental Relations issued a solid plea for rural-urban balance.

The 1968 National Governors Conference declared in somewhat exaggerated language that "population imbalance is at the core of nearly every major social problem facing our nation today". The Governors called upon the Congress to adopt a policy of balanced national growth, a position they have adopted in each successive conference.

In 1969, the U.S. Conference of Mayors called for more aid to small communities so they could absorb more of the projected population increase.

In 1970, President Nixon's Task Force on Rural Development painted a dark picture of our cities beset with "pollution, transportation paralysis, housing blight, and crime" and argued that further rural migration to the cities would necessarily compound these problems. The White House Council for the Future Staff gave prominent attention to the need to devise means to divert population pressure from the great cities.

And in his 1970 State of the Union message, President Nixon declared, "We must create a new rural environment that will not only stem the migration to urban centers but reverse it".

Thus, the original impetus to today's rural development came from a growing sense of concern and frustration over the crisis of the cities rather than out of an aroused awareness of the plight of rural areas.

With this background, I would, therefore, define rural development as a shorthand term for efforts aimed at improving economic and social conditions in rural communities, both poor and underdeveloped which in current usage means most of non-metropolitan America. These improvements are sought for reasons of equity; that is, to erase the rural deficit in such areas as income, housing, and health care. Equally important, they are sought as a means of discouraging rural to urban migration and to eventually reverse it to some unspecified extent.

Thus, the distinguishing characteristic of today's rural development is the drive to redirect population and economic growth patterns. It aims to encourage the dispersal of people and industry rather than their concentration. It is driven by the belief that the uncontrolled gathering-in of people and industry into the sprawling metropolitan agglomerations is undesirable because those areas, particularly the very large ones, are seen as increasingly economically inefficient, socially destructive, and politically unmanageable. It is reinforced, in some quarters, by the old and still powerful strain in American thought that the small community is sociologically preferable to the large city.

Now having suggested that the current rural development movement had its origins in our frustrations with the crisis of the cities, it is proper to ask, is it for real? Does it have staying power? Or is it only a temporary phenomenon?

I believe it is for real, and that it does have staying power. I am not sure that the term rural development itself will survive, but the concern for the development of the small community is rather solidly entrenched. There are several reasons for this.

First, we now know that the urbanization process simply must be brought under some control and we know that retaining and increasing population in non-metropolitan areas will be a positive factor in this effort. Thus the very fact that the current rural development movement arose in very considerable part out of the crisis of the cities, gives it an important additional source of strength. It adds to rather than subtracts from.

Second, out of this discussion and debate, we have developed a more heightened awareness of the extent to which rural areas do lag in many of the socio-economic indicators so considerations of equity will continue to be a strong driving force.

Third, rural development has a fairly strong ideological or value underpinning. America was born on the farm and in the small village. And although it has long since moved to the city we have always had some doubts as to whether the move was all that wise. We have always had a love-hate relationship with our cities. We have accepted the classical Greek view of the city as the seat of civilization and the modern Western view of the city as the center of economic power. But we have also wondered whether or not Rome did in fact fall because it became too "citified". We never fully embraced Jefferson's pronouncement of the cities as "cancers on the body politic", but we never forgot it.

At the same time we always have had a special affinity for the farm and small town. We have often criticized it for being narrow and provincial, but we have never feared it. Indeed, rural America has generally been looked to as a source of stabilizing strength and the repository of many important social virtues.

Fourth, politicians have found that an advocacy of rural development provides an excellent vehicle for communicating with their small town constituents. Many politicians have found that support for rural development is politically popular.

Now having said this, it is important to look at rural development from another perspective, the better to see its limitations.

Because rural development is a legitimate part of the general recognition that we should be trying to impose some semblance of spatial balance to our growing population, rural development proposals are often supported by urban interests. Nevertheless, in terms of initiating proposals and guiding them through the public policy making process, the burden falls primarily upon rural political representatives.

In the Congress there are an increasing number of Members who are willing to perform this task and they have done reasonably well. However, one of the things lacking is an organized rural lobby which can generate legislative ideas and marshal political muscle for their enactment. The farm organizations are divided by commodities and philosophy and are rather suspicious of the whole rural development thing in the first place. There is no organization which effectively ties farm and town together and is capable of articulating their concerns and mobilizing their political strength.

At the moment, the National Rural Electric Cooperative Association is the most effective general rural lobby but it is limited in many respects.

Last fall an organization called the Coalition for Rural America came into being. The Coalition is intended to fill the gap that now exists. If it survives and becomes a viable political lobby, the cause of rural development will have been considerably enhanced.

Now it's also necessary to deflate the claims made on behalf of rural development a bit. Despite the soaring rhetoric of many of its advocates, the improving of the condition of rural America will not cure all the ills of urban America, although it will surely help. Neither will the development of our rural communities result in a pattern of fully balanced national growth, although again it will surely help.

To keep our sense of perspective, we must recognize that the population balance has already tilted too far toward the metropolitan side, it can be brought back only partially.

Between 1950 and 1970 seventy four percent of the growth in metropolitan areas was natural, that is, due to an excess of births over deaths. And of the 26 percent increase due to in-migration a considerable portion of this was due to foreign immigration. Thus even if all rural migration were to be brought to a halt, the metropolitan areas would continue to grow at a striking rate.

Therefore, when we talk about balanced national growth, we are talking about something much bigger, something much more comprehensive than evening out the growth rates between non-metropolitan and metropolitan areas. Much, indeed most, of the "balancing" is going to have to be done within metropolitan America.

This is worth considerable stress because of the tendency on the part of some to treat rural development and balanced national growth as synonymous. Rural development is a part of balanced national growth but it is not the whole of it.

There are some who argue that rural development as a working concept should be dropped and that we should concentrate only on balanced national growth. Some do so because they feel uncomfortable with the rustiness of the term rural. Some do so because they believe that too much emphasis on rural development will detract from the larger issue of balanced national growth.

I disagree. It seems to me that rural development is an idea whose time has come in the political/operational sense, that we can and are, in fact, adopting workable public programs with definable objectives.

But truly comprehensive programs for balanced national growth are still not much more than a gleam in the eyes of a few urbanologists. It is so horizon-stretching, so complex, so slippery that we simply don't yet know how to act upon it. And this uncertainty can become a barrier to rural development if the two are too closely equated.

To illustrate some of the things I am driving at here, let me describe an incident that occurred in the Nixon Administration.

Not long after the President's 1970 State of the Union Message in which he had urged a reversal of the migration trends, a Subcommittee of the President's Domestic Council was assigned the task of putting together a comprehensive rural development and balanced national growth policy to be proposed by the President in his 1971 State of the Union Message. The Cabinet Secretaries and their staffs met regularly throughout the late summer and fall.

Certainly the assignment was treated with utmost seriousness. And it was undertaken with high expectation. But in the end the effort failed, no comprehensive policy was produced and the Administration fell back to the policy position of rural revenue sharing, government reorganization, welfare reform and the strengthening of existing programs having an impact on rural development.

This rather massive effort on the part of the Domestic Council failed to achieve its goal largely I think because the goal was realistically beyond their reach at that particular time.

The effort got under way originally because the Nixon Administration was being urged by a number of Senators and Congressmen and other political supporters to do something in the area of rural development. The President was sympathetic.

But rather than restricting the effort of producing a coordinated set of policy recommendations to "create a new rural environment" which the President had urged in his 1970 State of the Union Message, the Council took up the task of trying to develop a truly comprehensive, broad-gauged policy for balanced national growth. This seemed like the rational thing to do. Why treat just part of the problem? Why not go after the whole thing?

But the whole thing was impossible to get hold of. First of all, the technical information base simply wasn't there. Comprehensive data and economic and sociological models needed to evaluate alternative policies were lacking.

Secondly, there had simply not been enough national political dialogue. There was little clear understanding of what was politically acceptable and what was not? How would the big city mayors react? What would the Governors do? What would Congress accept?

In short, the informational and political frameworks which are necessary to the formation of broad, precedent setting national policy simply weren't well enough defined.

The Council had been given a mandate, yet in trying to fulfill it found itself operating largely in a vacuum.

Major shifts in national policy must undergo an evolutionary process. This is true for both technical and political reasons.

Now we can all agree that we should continue to move toward the development of a comprehensive policy of national growth. But the search for a national growth policy should not be allowed to become a barrier to rural development.

We are at that stage in the evolutionary process where we can do some concrete and very worthwhile things to improve economic and social conditions in rural America and we should proceed to do them. We should not be deterred by the argument that we shouldn't move ahead with programs for rural community development until we know all there is to know about national growth and how to control it so as to achieve the goals that we can all agree upon.

I fully recognize the hazards of taking public policy action without adequate knowledge of the consequences.

But certainly no great harm will have been done if we are able to encourage the creation of more new job-creating industries in rural areas.

Certainly we will have created no grave error if we are able to erase the rural deficit in such areas as income, education, and health care.

Certainly we will not have sinned grievously if we are able to improve social and cultural opportunities in our farm and small town communities.

And if we are successful in doing these things we will very likely have slowed the rural to urban migration and thereby taken a significant step toward the goal of true balanced national growth.

Legislative Record

Let me now turn to a review of the legislative accomplishments to date.

One of the first clearly identifiable pieces of legislation was the addition of a rural development Title to the Agriculture Act of 1970 which stated:

The Congress commits itself to a sound balance between rural and urban America. The Congress considers this balance so essential to the peace, prosperity and welfare of all our citizens that the highest priority must be given to the revitalization and development of rural areas.

The Title created no programs although it did lay down a set of reporting requirements on the Executive branch.

The Rural Development Act of 1972 is the first direct follow through to the rural development commitment written into the 1970 Act.

As passed by the Senate, the Act would move the Farmers Home Administration into the business of rural economic development in a fairly major way by authorizing it to make any type of loan for commercial and industrial purpose as well as for community facilities. The Agency would be divided into a Farm Development Administration and a Rural Enterprise and Community Development Administration.

Other titles would strengthen water and soil conservation programs, particularly to provide special assistance to projects which will help better link conservation efforts and rural community development programs.

Of particular interest to this group is Title VI, "Rural Development and Small Farm Research and Education", which directs the Secretary to establish a program of rural development and small farm research to be carried out primarily through the Land Grant Universities and the Cooperative Extension Service. The authorization is \$50 million for fiscal 1974 with increases to \$135 million by fiscal 1976.

The Act also has a \$500 million general rural revenue sharing provision.

One piece of legislative action which has largely been overlooked is the provision written into the Federal-Aid Highway Act of 1970 setting up a program of demonstration projects intended to illustrate the role of highways in small community development. This provision is a blend of Senator Pearson's Rural Development Highway Act and a proposal by Congressman Clauson. Future expansion of this program might well be of major significance.

The fiscal 1971 budget provided a \$3 million appropriation for rural development research to be administered through the Agricultural Experiment Station.

This rather meager legislative list does not tell the whole story, however. There are a number of other actions that can be attributed at least in part to the heightened interest in rural development.

The current funding level for the Farmers Home Administration housing and water and sewer programs is substantially higher than otherwise would be the case. For example, assistance for housing has more than tripled since 1969. This is due in considerable part to the support of the Nixon Administration.

The Congress has expanded the Resource Conservation and Development district program, largely because of the growing interest in rural development.

It is also true, I believe, that the interest in rural development has served to produce an effective counter to the pressures primarily from the Office of Management and Budget, to curtail certain of the conservation programs and the REA loan program.

The Housing and Urban Development Act of 1968 contains stronger provisions for rural housing and for non-metropolitan planning in part because of the rural development movement. And grants for non-metropolitan planning districts have tripled since 1969.

Also, HUD has recently funded a \$400,000 experimental project in rural Connecticut using communications technology in an effort to lure people out of the congested cities and into the rural areas. This is an outgrowth of a study which the National Academy of Engineering did for HUD and which concluded that "many of the cities' problems are caused by high density living conditions" and that communication technology can be used to counter the trend toward urban compaction.

What about pending legislation? During 1971 alone, there were over 130 distinctively rural development bills introduced in the House and Senate; and I don't have a count on those introduced so far in 1972. Few, if any, will be acted on in this Congress. Most will be re-introduced next year.

The major pending proposals are those which would establish a new credit structure to help finance rural community development and a tax incentive program to encourage industry to locate in rural areas. Initial votes on both of these bills have been adverse.

The Federal Rural Development Credit Agency originally proposed by Senators Humphrey and Talmadge and made a part of the Rural Development Act of 1972 was voted down on the Senate floor.

Senator Pearson's proposal to provide special tax incentives for new job-creating industries in rural areas was adopted by the Senate as an amendment to the Revenue Act of 1971, but was dropped in the Conference Committee.

Both of these will be pushed again in the 93rd Congress. Other proposals would strengthen rural health care, establish an emergency rural housing program, strengthen rural water and sewer assistance, improve air service to small communities, and establish a national rural development research center.

Role of the Land Grant System

Now in the closing section of my remarks I would like to comment on the role of the Land Grant University system in this area of rural development. And let me preface these remarks by saying that I am a product of the system. My earliest contact with the outside world came through the sponsorship of the local county extension agent. My undergraduate and graduate training was at a Land Grant institution, and I taught at a Land Grant University.

The establishment of the Land Grant system and later the creation of its sister institutions the Extension Service and the Experiment Station was one of the most important pieces of social legislation in the 19th century. Together these three sister institutions came to constitute the finest vehicle for community service, adult education, technology creation and technology transfer in the Western world.

One measure of the success of this institutional triad is the tremendous productivity of American agriculture.

There have been other sources and other reasons for this surge in the productive efficiency of American agriculture. Nevertheless, this institutional triad has been, to a very considerable extent, the motor force of the technological revolution in agriculture - a revolution which has depopulated the countryside and eroded the economic base of thousands of our small towns and cities.

Thus the Land Grant system has had an enormous impact on shaping our present population distribution patterns. It did not set out to do this but that is the end result.

The Land Grant system has too long ignored the social consequences of its technological contribution. It has been too slow in recognizing its responsibility to the larger rural community. This is not to say that agriculture should be ignored. Indeed there should be renewed attention to the needs of the small family farm. But the need for emphasis on agricultural production technology has diminished. And certainly the needs of the greater rural community must be considered.

In most states there is no other institutional arrangement which has the potential for servicing the needs and aspirations of small communities. This institutional triad can make an enormous contribution in analyzing community and area resources and economic growth potentials, it can do a great deal to meet the needs of small communities for technical assistance and planning, and it can be an effective instrument for technology transfer. It can do these and much more.

It would seem then that the time is propitious for a refocusing, a redefinition of the goals of the Land Grant system. Indeed, I would suggest that the current rural development movement demands it.

Now I know that changes have been underway in many states for several years but the progress to date looks small when measured against the potential.

I know something about the politics of universities, therefore I have an appreciation of how difficult and time consuming the effort to realign can be.

I also know that this expanded role of community service cannot be achieved simply by a readjustment of internal priorities. Additional financial support will be needed and you may properly ask where will it come from?

First of all, I believe that despite the financial squeeze on the states, their legislatures can be persuaded to increase appropriations if they can be convinced that the Land Grant system can execute a set of worthwhile community service programs.

Second, the prospects for increased Federal aid are good. Some of you may question that, in view of the fact that the Congress did not approve funds for the regional centers for rural development in 1970 and in view of the fact that only \$3 million annually has been earmarked for the Experiment Stations sponsored rural development research.

But this situation is explained in considerable part by the fact that there has been very little organized constituency effort to support these proposals. I would venture that most of the Senators and Congressmen who endorse rural development are only dimly aware of the role that the Land Grant system might play in this effort if properly funded.

On the other hand, Title VI of the pending Rural Development Act of 1972 is a good example of what can be done when the Congress is presented with a workable proposal by Land Grant people. This proposal was initially made by Chancellor Varner of the University of Nebraska at one of the field hearings of the Subcommittee on Rural Development and later perfected by one of the Association committees. The Senate Agricultural Committee was convinced and the rest of the Senate readily accepted it.

This is a conference on research priorities in rural development. I would suggest, only half facetiously, that one of your highest priorities should be a research project on how the Land Grant system can better convince the Congress of the role it is capable of playing in the rural development effort.

In conclusion, let me suggest that the growing interest in rural development presents the Land Grant system with a marvelous opportunity to broaden its horizon and redesign its community service programs. Given the right leadership and the right breaks, the Land Grant system can once again be one of the great social forces in this country. Someone is going to pick up the standard. It might as well be you. I hope that it will be.

- (1) "Rural Changes in the 1960's", 46th National Agricultural Outlook Conference, Washington, D.C., Feb. 18, 1969.
- (2) During the period of 1966 to 1969, New York City was hit with three teachers' strikes, a garbage men strike, a police "sick-in", a firemen's slow down, and a host of other problems which prompted Mayor Lindsay to proclaim, "the question now is whether we can continue to survive as a city".
- (3) This would be about \$100 billion per year. At that time it was estimated that we were spending about \$28 billion per year.
- (4) National Academy of Engineering Committee on Telecommunication. "Communication Technology for Urban Improvement", Report to the Department of Housing and Urban Development, Contract No. H-1221, June 1971, p. 405.

PUBLIC POLICY RESEARCH AND THE POLITICAL PROCESS

by
Don F. Hadwiger

May, 1972

My objective is to probe the relationship between rural development research in Iowa and its sponsors, giving special attention to public policy research.

The relationship between public agencies and the creation of knowledge runs in both directions. Public agencies may sponsor research. Conversely research findings may have some impact upon the structure and policies of the government. Knowledge indeed is power. These agencies, and all research sponsors, are inclined to manipulate the production and use of knowledge so as to maintain their own interests. Meanwhile, researchers addressing themselves to problems such as the problem of rural development certainly want to be free to suggest adjustments in the existing situation. Recognizing that sponsors provide the resources and then use or misuse the product, the producers of knowledge need to be as shrewd as they can be in defining their relationships with sponsors, most particularly when a new research area is being mapped as in the case of rural development.

In this paper I would like to discuss, first, the relationships in general between researchers and those who support them, and to follow this with some appropriately cynical remarks about how the political system uses knowledge. Then I will present a case study of censorship and bias which occurred in directing and using policy research on rural America. Following this are two measures of the content and constituency of agricultural research, one for the national level, and one for Iowa. Finally, I wish to suggest possible directions for defining relationships between researchers and the interests that sponsor them.

Relationships in General Between Researchers and Those Who Support Them

There are at least two words to describe those who support scholarly research. One word is "client," defined by Webster as "one who employs the services of any professional man." The other word is "benefactor," which Webster describes simply as "one who confers a benefit." The difference perhaps is that the client wants something rather specific, intended for his own purposes, while the benefactor may have no expectations about what is to be done or for whom, though he hopes that knowledge produced by scholars will be beneficial in some way.

Scholars probably prefer to serve benefactors rather than clients. They may contrast themselves with the typical professional who merely responds to his client's demands. This self-concept may be useful as a goal but it may be self-deceptive as a version of reality.

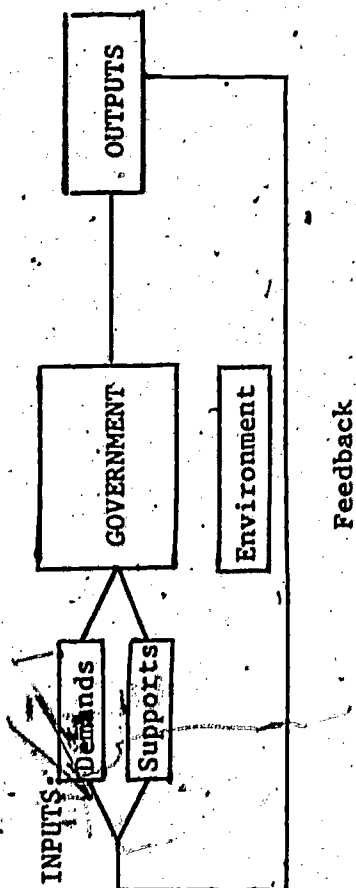
Our freedom is invariably circumscribed in some degree, even at great institutions. For example, we should notice that the state as our benefactor determines the areas of knowledge that will be given emphasis, and often these areas are selected in anticipation of serving certain goals and even certain interests. These goals may seem desirably broad, as were those listed in the original Hatch Act, and this was true at first of the goal of cold war defense that has supported most federal post-war research. Yet in each case, interests developed, and these interests tried to establish themselves as clients rather than benefactors. They particularly wished to control research describing the distribution of public policy benefits. Perhaps we can explain why this happened by briefly looking at the function of knowledge within the political system.

Knowledge in the Political System

We think of the political system as having inputs and outputs. Inputs are in two forms--(1) demands made upon the system such as requests for public education, lower consumer prices, or women's rights and (2) supports, such as the willingness to pay taxes and to obey price control rulings. Theoretically the system maintains good health by producing outputs that can generate new support, but this linkage is not so easy. Outputs may not be very helpful, perhaps because they are too few relative to other factors influencing inputs, or because they are not distributed wisely, and this may be true whether outputs are material, such as subsidies, or symbolic, such as status factors.

Rather than concentrating wholly on producing outputs, then, governments may become involved in the feedback process, seeking to control people's perceptions of reality, and also to control the means by which people communicate demands. At the extreme is the world of "Astro boy" where populations usually make no demands but rather give full support regardless of governmental policies. The other extreme is described in the Soviet Constitution, where every citizen has the right to receive full information, and to freely

Illustration 1. "THE POLITICAL SYSTEM"



LOCATING THE TYPICAL POLITICAL LEADER

use printing presses and other media to communicate his own views. But the Soviet Union, obviously does not tolerate uncontrolled feedback, and indeed no government is comfortable in the presence of so mischievous a right. Politicians in the Soviet Union and here do what they can to control opposition leaders, and try to monopolize those knowledge resources that are under government's wing. So, if a typical political leader were willing to locate his position within our model of the political system, he might not draw himself within the big box that stands for the political system, but rather show himself as a truant hanging on the line that feeds back demands and supports into the system.

We know of obvious cases where systems tried and apparently succeeded in managing feedback. Western totalitarian systems come to mind, also Western class systems such as Britain's in earlier centuries and our own traditionalist South, where most people were denied access to education, information, and the legitimate means for political participation. Today, access to information and the means for participation is less likely to be controlled by class norms and mechanisms, although the controls which do exist may on occasion benefit certain classes. Today, decisions are usually made within functional subsystems consisting of a few specialized legislators, particular bureaucracies, and a specialized constituency. This is the situation, as we know, in the case of agriculture policy.

Today's functional decision system finds it possible to isolate itself from certain kinds of demands entering the system. It may do this by establishing norms as to who may participate, akin to those once used to confine suffrage to property holders only. Or policy questions may be presented as being complex and uninteresting. And authoritative knowledge sources are kept under control of the subsystem, as much as possible.

It is this type of subsystem which has allocated benefits within rural America. As Professor Heady pointed out earlier, the distribution has been skewed toward certain groups, especially commercial farmers, who constitute a minority of all rural people. This subsystem has been notably unsuccessful in capturing benefits for rural America as a whole, but remarkably it has transformed the commercial farmer himself from a socio-economic

undardog to a commanding status position, where he is equal and perhaps superior to town professionals and businessmen, and far above the rural workingman. His community rank is increasingly that of the pre-civil war plantation owner, although today's commercial farmer (or farm corporation), more clearly than the Southern gentleman, is the "fat cat" from whom other rural citizens must derive their incomes.

One could argue, in the Marxist style, that the farmer has achieved this transformation simply by hanging onto his hat as he rode out a technological revolution. But in fact there are additional explanations, one of which is that the agriculture subsystem has been good at managing feedback. The system had several things going for it--the size of its fine knowledge establishment; the backbone, brains, and special motivations of the Southern gentlemen farmers; and the farmers' lack of inhibitions with respect to talking intellectuals and scientists what to do next. The scientists became just another set of hired hands.

I think it appropriate here to present a few of the disappointing incidents in efforts at rural development research within the agriculture subsystem.

Case Study of Research on Rural Policy and Development Within the Agriculture Experiment Station System

The agriculture research establishment is today largely the product of a series of laws and appropriations which began with the Hatch Act. This Act provided a rather broad mandate for research on "the problems of agriculture in its broadest aspects and such investigations which have for their purpose the development and improvement of the rural home and rural life, and the maximum contribution of agriculture to the welfare of the consumer, as may be deemed advisable, having due regard to the varying conditions and needs of the various states."* But this broad perspective has since been narrowed. Efforts to provide an honest comprehensive picture of rural life during and after modernization, and to devise programs of social action--these have been nipped in the bud.

*Quoted in Report of a Study sponsored jointly by Association of State Universities, and Land Grant Colleges and U. S. Department of Agriculture, A National Program of Research for Agriculture (October, 1966), pp. 32-33.

During the New Deal, a number of experimental programs to recognize and help the rural poor were developed under the Farm Security Administration. The FSA was dismembered at the earliest opportunity by white Southerners in Congress and in the Farm Bureau, with assistance from Midwestern conservatives. The same fate overtook the Land Use Planning Committees which were intended as a means by which rural communities could plan their own futures. Opposition to such institutions seemed to arise partly from the fear that they posed a threat to the "peculiar institutions" in the South, and they also threatened the structure of commercial agriculture. Of course opposition could also be justified based on rural values which opposed government planning.

Subsequently the dismemberment of the USDA's Bureau of Agricultural Economics (BAE) provided a clearer picture of the motivations of decision-makers on agriculture policy. The BAE in 1945 had taken on the mission of preparing for changes in post-war agriculture. The BAE produced a so-called "conversion program for the cotton South," which would have de-emphasized cotton, diversified Southern agriculture, and would have provided industrial job training so that those moving out of Southern agriculture could find work nearby. This plan was labeled a "socialistic" scheme at that time by most cotton Congressmen.* Midwestern Republicans joined in demanding that the BAE be disciplined. Secretary of Agriculture Clinton Anderson thereby reorganized the BAE in accord with the advice of Representative Jamie Whitten (D., Miss.). The BAE lost its mission of rural development and also lost most of its distinguished personnel. Congressman Whitten's advice was to be applied henceforth, as he reminded Secretary of Agriculture Orville Freeman in 1961. He said to Freeman at that time, "I would say for the record that in past years we had some problems with the old Bureau of Agricultural Economics. At one time some of their social studies and other things were, to say the least, not very popular up at this level. It looked to us as if those things were getting over into the policy field, that perhaps some undue influence was exercised on action programs by the theorists and economic groups. It reached the point where it was extremely difficult for the Bureau

*Richard S. Kirkendall, *Social Scientists and Farm Politics in the Age of Roosevelt* (Columbia, Missouri: University of Missouri Press, 1966), pp. 227-228.

of Agricultural Economics to get proper financing through the Congress. I don't mean that that will be the experience in the future, and I don't say it in any way to upset your plans at all. But it is always good for all of us to read history. May I suggest that reading a little history might keep our new bureau in the proper field of activity, if the feelings of Congress are like they were some years ago.**

The continuing antipathy toward more comprehensive perspectives on rural America was revealed in hearings on funds for rural development research during the past three years. During 1970 and 1971 several members of the House Appropriations Committee urged the CSRS to abandon efforts to do rural development research. They argued generally that such studies are ineffective, and money can be spent better in research on natural sciences. Congressman Mark Andrews (R., N.D.) specifically suggested that research on sunflowers was a better strategy for rural development in North Dakota than rural development research per se. He was particularly concerned that funds might be spent for economists and sociologists from the East who would come in to provide advice on North Dakota.**In 1970, the House Appropriations Committee refused to approve a \$3 million request for rural development funds, the reason being, according to Representative Whitten, that the Committee believed the funds could better be used for rural water and sewer facilities. At the hearings, Congressman Whitten told Dr. John D. Sullivan of CSRS, "With all due deference to the research that you do and the fine bulletins that you publish, (rural people) don't want anybody sending them any more bulletins right now. They don't want anybody calling meetings and offering resolutions. If the folks I listen to have anything to say about it, what they want to do, if I understand them correctly, is to improve rural areas so we might slow down some of this movement toward the cities." Whitten said he preferred to use funds for rural electricity, sewage systems, and aid to rural industry. Whitten added, "I think everybody already knows what to do. Unless you get them to do what you already know to do, I don't think we need some more answers when

*U. S. House Appropriations Subcommittee on Agriculture, Hearings on Department of Agriculture Appropriations for 1962 (1961), p. 70.

**U. S. House Appropriations Subcommittee on Agriculture, Hearings on Department of Agriculture Appropriations for 1971, (1970), part 2, pp. 400-402; and Hearings on Department of Agriculture Appropriations for 1972, (1971), part 2, pp. 581-582.

we won't use the answers we already have. This is the reason this Committee recommended last year that you forgo these development centers where you planned to meet and discuss what you were going to do to rural life.**

The request for rural development funds was restored by the Senate Appropriations Subcommittee for Agriculture. The outcome of this apparent serious conflict between the Department of Agriculture and certain influential members of Congress does suggest that the political environment for comprehensive rural development research has changed somewhat.

Effects of Client Domination Over the Knowledge Process

There is obviously something to be said for external controls over scholars such as those exercised in the above comments by members of the Congressional Appropriations Committees. Left alone, scholars might become lazy, or might well amuse themselves with really irrelevant questions. Parenthetically, clients as well as scholars may sometimes prefer to be amused rather than informed, like the queen who seeks arguments over which dress she looks best in. Politicians have for generations seemed to enjoy learned debates on whether the electoral college should be modified or abolished.

There is usually much to be said against external controls when the objective of these controls is to make knowledge serve narrow special interests. The impact of such control might be to force research into a status quo perspective, as in the case of cotton textile research within the Agricultural Research Service. The ARS has refused to experiment with synthetic blends because the sole aim of the cotton research program was to maximize use of cotton.**

Over time, of course, substantial clients such as the federal government and/or a major economic interest can reduce the vision of a whole academic discipline. Over time, the exercise of censorship on one hand while offering a carrot on the other may infect some of the best and freest products of a discipline. An example is Harold Brayner's recent

*U. S. House Appropriations Subcommittee on Agriculture, Hearings on Department of Agriculture Appropriations for 1972 (1971), part 2, pp. 563-564.

**U. S. House Appropriations Subcommittee on Agriculture, Hearings on Department of Agriculture Appropriations for 1970 (1969), part 2, pp. 72-73.

book dealing with the freedoms enjoyed by participants in the farm economy.* In this book the author failed even to discuss farm workers. Were they participants in the farm economy, and was "freedom" relevant to them? Certainly, he said, and he was at a loss to explain the omission, except that earlier writings on the farm economy had also excluded farm workers.

Perhaps it is too easy to blame clients for the fact that large areas of the rural landscape have been poorly covered by rural research institutions, but the issue should be squarely confronted by any group whose mission is to study rural development.

Clients have particularly discouraged the production of policy-oriented research. Perhaps the reasons for this were indicated in the case study above. In 1965 a special task force of the Cooperative State Research Services headed by Dr. George Browning found that the USDA and CSRS were doing little research on social, economic, and human aspects of rural America, and called for more. Subsequently J. Patrick Madden noted five problem areas on which research was needed, including "meeting the housing needs of rural families." Madden listed five types of public policy research needed on these problem areas. His list includes the following: (1) determine the existing situation, including description of the target population; (2) analyze relevant forces impinging, and estimate causal relations; (3) study the effects of current intervention programs; (4) evaluate potential innovations in intervention programs, using pilot studies; (5) pull together information and make it accessible to policy makers; (6) Madden also emphasized using techniques to make knowledge accessible, and this is listed here as the sixth type of research.

There follow two analyses which might indicate how well we are doing in Iowa and in the nation in addressing ourselves to rural policy research priorities. One measure of federal-supported research on housing under 1970 projects nationwide uses Madden's categories, and the other, an analysis of research publications in Iowa State's Bulletin,

*Freedom and the Economic Organizations of Agriculture (Urbana: University of Illinois Press, 1963).

Special Reports, Iowa Farm Science and Farm Policy Forum, uses the classifications of research employed by CSRS.

Research subjects for housing research nationwide are summarized in Table 1. Out of the total of 71 projects listed under RFA 801 (housing) for which some description was provided, 36 of these could be placed in Madden's categories. However these 36 projects accounted for only one-fifth of the total research man-years. Other research dealt with technical aspects of construction and maintenance. Policy research projects were mainly dealing with the situation and its causes rather than with programs or remedies.

For whom were these findings intended? Since most research in man-years was concerned with technical aspects of construction or maintenance of property, the principal users presumably were those who construct or maintain houses, including architects, builders, and service industries. No one tested the proposition that economies achieved in the construction of houses will be passed along to the consumer. Consumer interests were rarely mentioned in the progress reports.

Generally speaking, no user was specified in most of the other projects not dealing with technical aspects. It was difficult to know, for example, who would be the user or recipient of new information about relationships between socio-economic characteristics of residents and the quality of their housing. This information might be used in program development, but it was not usually addressed to methods of administering programs or other causes directly subject to administrative controls. In summary, most housing research was not intended for the benefit of consumers directly, or for policy makers. Rather it was pointed toward use by the housing industry, or to be incorporated into a larger body of sociological knowledge.

Iowa State research published in its own outlets is summarized in Table 2. This table categorizes publications according to the comprehensive scheme used by CSRS-USDA. It provides a basis for comparing the distribution of Iowa State output over the past decade with the distribution under 1970 research projects across the nation. From this comparison it appears that sponsored research at Iowa State has been more oriented towards the problems of people in communities than nationwide agricultural research

Table 1

Types of Research under RPA "Rural Housing,"
by CSRS and USDA, calendar 1970*

<u>Madden Public Policy Categories**</u>	<u>No. of Projects</u>	<u>Man-Years</u>
1. Situation	12	6.6
2. Causes	15	4.4
3. Current Programs	1	.0
4. Innovations	4	.7
5. Synthesis of findings	2	.6
6. Communication to decision makers	2	.5
Subtotal	36	12.8
<u>Technical Findings</u>		
7. Construction	15	39.6
8. Parasites	6	12.0
9. Maintenance	3	1.2
	24	52.8

*Derived from information in annual progress report

**J. Patrick Madden:

1. Determine the existing situation, including description of the target population.
2. Analyze relevant forces impinging, and estimate causal relations.
3. Study the effects of current intervention programs.
4. Evaluate potential innovations in intervention programs, using pilot studies.
5. Pull together information and make it accessible to policy makers
6. Use techniques to make knowledge accessible.

from "Social Change in Public Policy in Rural America: Data and Research Needs for the 1970's," American Journal of Agricultural Economics (May, 1970), pp. 308-314.

Table 2. Classification of Research Published in Selected Iowa State University Publications.

	Sci		Rural		Estate		Estate		Estate		Total		Sci-Natl 1970-1971
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1. Resource Conservation & Use	6	15	13	18	6	3	5	5	30	7	1335	13	
2. Protection of Forests, Crops, Livestock	2	5	1	1	27	14	0	0	30	7	2095	20	
3. Efficient Production of Farm, For. Prod.	3	8	19	26	34	17	5	5	61	15	3104	30	
4. Product Development & Quality	0	0	0	0	0	0	1	1	1	0	1676	14	
5. Efficiency in Marketing System	8	21	17	23	44	23	8	8	77	19	545	5	
6. Expand Export Markets, Assist Dev. Countries	0	0	0	0	1	1	15	14	16	4	123	1	
7. Consumer Health, Nutrition, Well-being	2	5	0	0	15	8	0	0	17	4	529	5	
Food Free from Toxic Residues	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)			
Protect Food Supplies from Natural Toxins	(0)	(0)	(0)	(0)	(1)	(1)	(0)	(0)	(1)	(1)			
Food Choices, Habit, Consumption	(0)	(0)	(0)	(0)	(5)	(5)	(0)	(0)	(5)	(5)			
Home/Commercial Food Preparation	(0)	(0)	(0)	(0)	(7)	(7)	(0)	(0)	(7)	(7)			
Selection/Care Clothing, Textiles	(0)	(0)	(0)	(0)	(1)	(1)	(0)	(0)	(1)	(1)			
Control Insect Pests of Man	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)			
Prevent Trans. of Animal Dis. to People	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)			
Human Nutritional Well-being	(0)	(0)	(0)	(0)	(1)	(1)	(0)	(0)	(1)	(1)			
8. Raise Level of Living of Rural People	10	26	22	30	35	18	39	37	104	26	329	3	
Housing Needs of Rural Families	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)			
Family Decision-Making/Financial Mgt.	(2)	(2)	(0)	(0)	(5)	(5)	(0)	(0)	(7)	(7)			
Cases/Remedies of Rural Poverty	(0)	(0)	(0)	(0)	(0)	(0)	(15)	(15)	(15)	(15)			
Improvement of Economic Potential	(1)	(1)	(3)	(3)	(2)	(2)	(2)	(2)	(8)	(8)			
Communication Processes	(0)	(0)	(1)	(1)	(0)	(0)	(0)	(0)	(1)	(1)			
Individual/Family Adj. to Change	(5)	(5)	(6)	(6)	(6)	(6)	(0)	(0)	(17)	(17)			
Structural Changes in Agriculture	(0)	(0)	(7)	(7)	(17)	(17)	(22)	(22)	(46)	(46)			
Govt. Programs to Balance Farm Output/Demand	(1)	(1)	(5)	(5)	(5)	(5)	(10)	(10)	(21)	(21)			
9. Improve Community Services/Environment	8	21	2	3	18	9	32	30	60	15	833	8	
Alleriate Pollution	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)			
Recreation	(0)	(0)	(0)	(0)	(4)	(4)	(0)	(0)	(4)	(4)			
Multiple-Use Potential of Forest	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)			
Wildlife/Fish Biology/Habitat	(1)	(1)	(1)	(1)	(2)	(2)	(0)	(0)	(4)	(4)			
Trees to Enhance Rural/Urban Envtg	(1)	(1)	(0)	(0)	(4)	(4)	(0)	(0)	(6)	(6)			
Culture/Protection Ornamentals & Turf	(0)	(0)	(0)	(0)	(5)	(5)	(0)	(0)	(5)	(5)			
Improve Income Opportunities	(2)	(2)	(0)	(0)	(13)	(13)	(9)	(9)	(24)	(24)			
Improve Rural Institutions/Services	(3)	(3)	(0)	(0)	(1)	(1)	(23)	(23)	(27)	(27)			
OTHER (includes "available publications," "for your interest," etc.)	(0)	(0)	(0)	(0)	(15)	(8)	(0)	(0)	(15)	(8)			
TOTAL	39	101	74	101	195	101	105	100	413	101	30,393	99	

*Special Reports include the 39 numbers from August of 1962 to May of 1971

**Research Bulletins include 74 numbers from January, 1962 to October of 1971

***Farm Science includes 195 articles from February 1968 to January 1971 (when the periodical ceased publication)

****Farm Policy Forum includes 105 articles from last issue in 1962-63 volume to 1968, (when the periodical ceased publ.)

*****Distribution of Scientist Non Years in Support of Agricultural Research, SARE-USDN, Secret North Central Office of Regional Director, 8/18/71

projects, even in 1970. This may explain why research activity at Iowa State is often cited at congressional hearings as illustrative of new objectives in agricultural research.

Which Clients?

My discussion of client relationships up to this point has stressed the impact of clients upon research orientation. What I have meant to emphasize, however, is that our research will tend to--indeed must--have specific users, and we will usually look to these users for resources to continue research. Therefore we should seek out client relationships that permit us to do research which we think to be worthwhile, and that provide some assurance that clients will implement our findings in a constructive manner.

Perhaps the ideal client was the first one to be served by agricultural research--the aggressive farmers who immediately put research findings to work. In the struggle of man against nature there was at that time little political conflict, and in any case farmers then had high status and enough power. But the strategy of serving successful farmers wore thin as farmers became less constructive in the social arena, less powerful in politics, and less needful of public research.

Rural research institutions, recently bothered by the question of equity both with respect to the distribution of resources generally and the distribution of benefits from their own research findings, are seeking to serve a rather new group of clients--the rural disadvantaged, who have little political power, lots of incipient opposition including that generated by their own self-concept, and who do not appear at the doorstep waiting for research outputs.

Rural development as a new mission does offer the possibility of new potential clients, and the possibility of achieving a balance among possibly competitive interests. Yet some interests no doubt will be more possessive than others, and present clients already include industries whose social impacts are under sharp criticism, and also intransigent governments and bureaucracies.

Rural development offers an opportunity for what Harold Lasswell has called, "configurative thinking," which in these times may be a feasible strategy for some

researchers, and a grand illusion for others. Lasswell, in an article, "From Fragmentation to Configuration," says that the kind of specialized piecemeal knowledge that has been produced until recently has lent itself almost by its nature for use by special interests. Indeed Lasswell is generally cynical about the impact of past knowledge, stating that "The institutions of war and oligarchy predate modern science and scholarship, and it is worth reiterating that thus far they have captured science and scholarship for their special concerns."* But Lasswell continued, "There are grounds for suggesting that these results are temporary, not permanent, and that the intellectual prerequisites for different effects are spreading. In belated parallel to the multiplying network of intermediaries is what may be called the counter-offensive of configurative thinkers."** What Lasswell is saying, as I understand him, is that the philosophical approach which preceded the capacity to produce empirical knowledge, is now made possible again in our empirical age, by virtue of the improved systems of knowledge production. New integrative theoretical approaches, the high speed computer, and the appearance of a few configurative thinkers have set the stage, according to Lasswell. These new developments allow "a contextual," a multi-valued point of view to pass from fantasy and exhortation to reality."

But even on this new plane problems remain. Lasswell's main concern is whether access to the means of information will be open to all participants. "Or will existing oligarchies--some highly concentrated, some relatively dispersed--maintain or increase the degree of their effective monopoly of knowledge, agitation, authority, and control? Will they capture configurative thinking for systems of non-shared power?***

In the last analysis, rural development does offer opportunities for reshaping our client relationships, and may even permit new integrative approaches. By the same token it is a time for being alert to the dangers of client relationships. "How do you stick your head into the lion's mouth," someone asked the lion tamer, and he replied, "Very carefully." We should deal with our clients in like manner.

*Harold Lasswell, "From Fragmentation to Configuration," in *Policy Sciences* (December, 1971), Vol. 2, No. 4, p. 442.

**Ibid.

***Ibid., p. 445.

Problems of Communicating Findings

Lions, of course, are dangerous, but lion tamers could not be without them. Researchers need users, and we can only emphasize by way of illustration here, the importance of developing the fine art of cultivating and using users.

1. Note, for example, that the typical politician is a lawyer, and as such his test of validity is likely to be external rather than internal--he asks whether a target group is likely to be impressed with certain findings. He is also more likely to prefer a single valid case over generalizations based on anonymous cases such as those proceeding from surveys and census data.

2. Consider also that it matters altogether whether a subject has salience. The process of popularizing a subject is usually distasteful to scholars, which means researchers may rarely be able to control the timing for consideration of problems.

3. Consider that we indeed appreciate groups and individuals who are willing to test our hypotheses on themselves. An especially close relationship must be developed with parties who are asked to invest their own time and fortunes in experimenting with our ideas.

4. There are various levels of sophistication at which research findings can be communicated. Presumably the Governor's Office of Planning and Programming can accept a higher level of complexity than can a group of legislators or a governor's assistant, or an amateur organization representing certain citizens. If possible, researchers should surely be prepared to provide acceptable presentations at all of these levels.

5. The question as to where to make research inputs for rural development is really too complex for a specific answer. Unfortunately, the answer depends highly on the circumstances. We can only raise the image of the "multiple-cracks," denoting that on a given problem many decision arenas participate, and all have some impact, and some have a veto. The best strategy is to touch all the bases--the political parties, the legislators and other elected office holders, the bureaucrats at each level, the media, the private groups. A hopeless strategy, by contrast, is to produce a good research bulletin and mail it third class to libraries and colleagues.

Researchers are understandably reluctant to become peddlers, but if we really are pleased with our products, then we must seek to become at least as thorough in achieving salience for problems and awareness of our findings as we are in conducting the research itself.

The author wishes to acknowledge the assistance of Gary Meyer in the analysis of Iowa State publications.

DON F. HADWIGER

THE FREEMAN ADMINISTRATION AND THE POOR

In May and June of 1968 a weeks-long demonstration took place outside the United States Department of Agriculture. It was one manifestation of the Poor People's campaign, and it came on the heels of Washington's major slum riot. Most of the demonstrators were black, and poor.

This was a most awkward confrontation for the liberal leadership of the USDA. The managers of the Poor People's campaign were not there to plead the cause of civil rights, but rather to bring to Secretary of Agriculture Orville Freeman's attention the victims of departmental policies. In 1967 the President's Commission on Rural Poverty had said "This nation has been largely oblivious to these 14 million impoverished people left behind in rural America . . . Instead of combating low incomes of rural people [agricultural programs] have helped to create wealthy landowners while bypassing the rural poor."¹ "Major programs have been discriminating against the poor farmers since the 1930's," wrote Charles Hardin for the National Advisory Commission on Food and Fiber, and he added, "Who will estimate the cost to the ideals that are supposed to make this country great?"²

The USDA's major benefits went mainly to those with "viable" commercial farms (\$10,000 or more in sales), which included only about one percent of all Negro farmers.³ Farm workers, as contrasted with farm owners and farm operators, received virtually no benefits from the Department of Agriculture, which meant that most Mexican-Americans were left out. In addition to class and occupational discrimination, according to careful observers, there existed explicit, pervasive, and unremitting race discrimination, both in employment and in services provided.

Leaders of the Poor People's campaign had a gut-awareness of this record, as indicated in their demands for an end to big farmer subsidies, for loans to small farmer cooperatives, for improvements in farm laborers' bargaining position,

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1. *The People Left Behind*, Report by the President's National Advisory Commission on Rural Poverty (Washington, D.C.: G.P.O., Sept. 1967), p. ix.

2. Charles M. Hardin, *Food and Fiber in the Nation's Politics*, vol. 3 of the Technical Papers for the National Advisory Commission on Food and Fiber (Washington, D.C.: G.P.O., August 1967), p. 19.

3. Of 868,908 farmers with sales of \$10,000 or more, 7,036 were nonwhite operators living in the South, according to U.S. Department of Commerce, Bureau of Census, *1964 U.S. Census of Agriculture*, vol. 2, chap. 8, table 25; and chap. 8, table 26.

and for implementation of the recommendations of the U.S. Civil Rights Commission. But the protracted demonstrations at the USDA were intended to center attention on the hunger issue. Presumably Reverend Ralph Abernathy and other leaders felt the hunger problem was most urgent and most salient. They believed Freeman had the power to provide immediate substantial relief and that, since he was a liberal, he could be persuaded to do so. They were wrong.

Control over the programs at issue lay not mainly with Freeman but with senior members of three committees of the Congress. The agriculture committees of both houses, and the Agriculture Subcommittee of the House Appropriations Committee, had been headed for many years by southerners representative of the white aristocracy, and of the commercial farmer class that had emerged in all great agricultural regions in the past three decades.

The rural achievers who captured the economic benefits of new technology were also competent to bend government to their ends. Government provided them bargaining power vis-à-vis other segments of the economy, and gave them a control over their workers which was quite extraordinary for the times. Inadvertently farm programs hastened the demise of the noncommercial farmer competitors. Yet the direct and indirect subsidies to the rural minority of commercial farmers were justified to the nation as based on the needs of all rural people. "It ain't the first time somebody has been used," said a USDA official, but American history probably reveals no more flagrant example. A measure of how well the system had socialized its functionaries was Freeman's statement scolding the Poor People's leaders for criticizing acreage subsidy programs: "When the farmer loses," he explained, "it is the poor, small farmer who suffers most."⁴

Substantial efforts to help the "forgotten man" were simply not tolerated, although the USDA has never been without a casual sprinkling of token projects. The civil rights revolution exposed the severe class discrimination which both Negroes and poor whites had experienced, and emphasized the Jim Crow practices under which Negroes alone had suffered.

The Department of Agriculture had indeed grown up white, like most American institutions. On the race issue it was rural southern white, because federal policy for each of the great agricultural regions had been written largely by its own representatives, and few black people farmed outside the South. Black colleges and black extension workers existed mainly to permit an easy exclusion of blacks from the regular system.

In Freeman's time the phalanx of southerners dominating each congressional agriculture committee wished to use the resources and jurisdiction of their federal agency to resist the civil rights revolution, and also to resist most aspects of the anti-poverty programs. Even the domestic food-assistance programs were to be used only to dispose of farm surpluses, to maintain a compliant and low-cost work force, and to bargain for urban votes on farm bills. This intent is revealed

4. Letter from Freeman to Reverend Ralph Abernathy, 23 May 1968, copy in USDA history files.

in a statement by Jamie Whitten, Chairman of the House Appropriations Subcommittee, speaking during the Benson era:

I am now of the opinion that the only way that we can get the Department to move fast enough to protect the farm prices and the income of the farmer is once again to transfer Section 32 funds⁵ to the school lunch program so that they will have to use them.⁶

Ten years later House Agriculture Committee member Paul Jones, from Missouri's cotton boot heel, voiced his and his chairman's warning against making concessions to the Poor People's campaign:

The thing is, as Mr. Poage said this morning, there are people like that big buck down at the city who said that he went to the so-called resurrection city to get away from that shovel. Well, I am getting tired of that, myself.⁷

Orville Freeman as Secretary of Agriculture might at some point have challenged these men on these issues. But President Kennedy's first instructions to him were "Placate them," because Kennedy needed southern congressional votes on matters of higher priority than agricultural reform. At a crucial moment years later, Freeman got similar orders from President Johnson.⁸

Freeman moved right at the beginning to gain the complete confidence of Allen Ellender, a segregationist, conservative Democrat from Louisiana, chairman of the Senate Agriculture and Forestry Committee; moderate Democrat Harold Cooley, chairman of the House Agriculture Committee; and Cooley's vice-chairman, W. R. Poage of Texas, an outspoken segregationist. Freeman also gained and maintained a good relationship with Mississippi Congressman Jamie Whitten, chairman of the Appropriations Subcommittee, who was an opponent of race-mixing, with a streak of paternalism. With support from these men Freeman achieved a major objective of the agricultural establishment—control of the surplus which had accumulated during the Benson era.

One partial solution of the surplus problem was to send large amounts of commodities overseas as food aid. Overseas shipments in 1965 and 1966 prevented severe famine in India, with incalculable benefits. Freeman weathered severe criticism from producers because he insisted on a safe margin of world wheat supplies.

Besides preventing famines Freeman sought developmental uses for surpluses sent abroad. In foreign food aid Freeman had found his mission. "Victory in [the War Against Hunger]," he said, "will save more lives than have been lost in all the wars of history."⁹ But at home there were new moral and legal commitments that certainly posed a dilemma for a liberal Secretary of Agriculture

5. Section 32 funds are derived from tariff receipts and are for the purpose of increasing the use of U.S. farm products.

6. U.S. Congress, House, Committee on Appropriations, *Department of Agriculture Appropriations for 1959, Hearings*, before a subcommittee of the Committee on Appropriations, 85th Cong., 2 sess., 1958, p. 1413.

7. U.S. Congress, House, Committee on Agriculture, *Amend the Food Stamp Act of 1964, Hearings*, 90th Cong., 2 sess., 1968, p. 11.

8. Nick Kotz, *Let Them Eat Promises* (Englewood Cliffs, N.J.: Prentice-Hall, 1969), pp. 147-92.

9. U.S. Congress, House, Committee on Agriculture, *World War on Hunger, Hearings*, 89th Cong., 2 sess., 1966, p. 188.

whose President wished the USDA not to antagonize segregationists and conservatives. The federal government had discovered the "other Americans." Title VI of the Civil Rights Act of 1964 required integration in agency employment and services. In 1967 and 1968 domestic hunger became a major issue.

At least four initiatives seemed in order, given the resources of the Department, and the needs of the nation: to describe the conditions of poverty in rural America, and experiment with remedies; to seek a more equitable distribution of existing program benefits; to institute racial integration in USDA agencies and services; and to develop adequate family food assistance and school lunch programs. What Freeman actually did in each of these areas will be discussed, beginning with the research and experimentation initiative.

To gain information about the problems of rural America, and to find solutions, was a mandate of the Hatch Act, from whose subsidies a magnificent research establishment was developed in the land-grant colleges and then in the USDA. The Act provided for research on "the problems of agriculture in its broadest aspects and such investigations which have for their purpose the development and improvement of the rural home and rural life, and the maximum contribution of agriculture to the welfare of the consumer, as may be deemed advisable, having due regard to the varying conditions and needs of the respective states."¹⁰ For more than half a century since then, agricultural research has been "pragmatic," in the sense that it has operated without social perspectives, and in response to bureaucratic and political pressures. The research product was appraised by a committee of insiders in 1965. They found much research on agricultural production, and little on rural society.¹¹

Public agricultural research can be credited in large part with the abundant product of commercial agriculture, but the effects of technological change had a dark side which public research was not encouraged to observe. Efforts to provide an honest comprehensive picture of rural life during and after modernization, and to devise programs of social action—these have been nipped in the bud. A short history of these efforts is needed in order to appreciate Freeman's dilemma.

During the New Deal, a number of experimental programs to recognize and help the rural poor were developed under the Farm Security Administration. The FSA was dismembered at the earliest opportunity by white southerners in Congress and in the Farm Bureau, with plenty of assistance from midwestern conservatives.¹² Such was also the fate of land-use planning committees which were supposed to become a means by which rural communities could plan their own futures.

No less a threat to the South's peculiar institutions was the USDA's Bureau of Agricultural Economics (BAE), a group of ambitious social scientists, headed

10. Quoted in *Report of a Study sponsored jointly by Association of State Universities and Land Grant Colleges and U.S. Department of Agriculture, A National Program of Research for Agriculture* (October 1966), pp. 32-33.

11. *Ibid.*, pp. 55-57.

12. See Grant McConnell, *The Decline of Agrarian Democracy* (Berkeley: University of California Press, 1953), and Sidney Baldwin, *Poverty and Politics* (Chapel Hill: University of North Carolina Press, 1968).

by Howard Tolley, whose mission in 1945 was to prepare for changes in postwar agriculture. The BAE produced a so-called "conversion program for the Cotton South," which would have de-emphasized cotton, diversified southern agriculture, and provided job training for industry so that those moving out of southern agriculture could find work nearby.¹³ This plan was labeled a "socialistic" scheme at that time and provoked the wrath of Representative Whitten and the other cotton congressmen.¹⁴ Midwestern Republicans joined them in demanding that the BAE be disciplined. Secretary Clinton Anderson reorganized the BAE in accord with the advice of Representative Whitten, and the principals in that agency fled to distinguished careers in the universities and elsewhere, or hunched down in the USDA bureaucracy. Congressman Whitten's advice was to be applied thenceforth, as he reminded Freeman in 1961:

I would say for the record that in past years we had some problems with the old Bureau of Agricultural Economics. At one time some of their social studies and other things were, to say the least, not very popular up at this level. It looked to us as if those things were getting over into the policy field, that perhaps some undue influence was exercised on action programs by the theorists and economic groups.

It reached the point where it was extremely difficult for the Bureau of Agricultural Economics to get proper financing through the Congress. I don't mean that that will be the experience in the future, and I don't say it in any way to upset your plans at all. But it is always good for all of us to read history. May I suggest that reading a little history might keep our new bureau in the proper field of activity, if the feelings of Congress are like they were some years ago.¹⁵

Whitten and associates have continued their role as research chiefs, overseeing a federal-supported establishment that includes most of the available expertise on rural America.

Whitten has ignored requests for more adequate human nutrition research. Vast areas of the rural landscape are either off-limits or are covered on tiptoe, and research items have been phrased so as to avoid committee biases. Questions which were politically unresearchable have been passed over. A USDA scholar recently wrote a fine book on the freedoms enjoyed by participants in the farm economy.¹⁶ Farm workers were not mentioned. Was "freedom" relevant to them? Certainly; and the author was at a loss to explain the omission, only observing that earlier writings also excluded farm workers.

Directors and researchers in the land grant college experiment stations also moved into harmony with congressmen and local potentates, whose desires were often interpreted as the authentic voice of "society." Natural scientists who tended to dominate the experiment stations avoided social research that might embarrass the various interests that supported the colleges. Criticism of

13. Richard S. Kirkendall, *Social Scientists and Farm Politics in the Age of Roosevelt* (Columbia, Missouri: University of Missouri Press, 1966), pp. 227-28.

14. *Ibid.*

15. U.S. Congress, House, Committee on Appropriations, *Department of Agriculture Appropriations for 1962, Hearings*, before a subcommittee of the Committee on Appropriations, 87th Cong., 1 sess., 1961, p. 70.

16. Harold F. Breimyer, *Individual Freedom and the Economic Organization of Agriculture* (Urbana: University of Illinois Press, 1965).

the system was clearly aberrant behavior, best engaged in by pseudonym, as in the book *Poor Damn Janeth*.¹⁷

The USDA and the experiment stations have proved that much first-rate research can be done in an atmosphere of censorship, but when large sectors of reality and a whole race of people—even a whole class of people—are given almost no research priority and cannot be studied objectively, then the results of such research cannot be the basis of a good society.

For the record, there were a few studies and surveys of social conditions in rural America, begun under Freeman, adequate in terms of their objectives.¹⁸ These studies produced economic data crying for complementary sociological data. They provided opportunities for analysis and needs for verification. They also showed the need for analysis of the effects of federal policies, but the USDA's Economic Research Service was generally not permitted to undertake such subjects.

When we move on from research to the question of distributing benefits more equitably, we find that the Department of Agriculture had major responsibility for certain aspects of the rural poverty scene, including rural housing and rural community development. Freeman did push for an agency to stimulate community development but finally backed down in deference to conservatives such as Whitten, who registered disapproval and denied appropriation requests. The USDA housing agency, Farmers Home Administration, was a remnant of the Farm Security Administration. Its housing record in the period 1960-1968 is suggested in the findings in a USDA social research publication, as follows:

Rural housing had improved considerably since 1960, but the condition of housing occupied by the rural poor may not have improved very much . . . Over 95% of the homes built were constructed by families with incomes over \$6,000 a year. Also, most of the repairs were of a minor nature and made to standard homes.¹⁹

In 1960 there were 4.8 million families in rural substandard housing,²⁰ but the number of annual housing starts and rehabilitations financed was only 1 percent of that need, even in the peak year of 1968.²¹ By 1969 Farmers Home had been given workable programs providing subsidized loans under legislation developed by the congressional banking and currency committees. Loan activities had tripled since 1960, by any measure, but annual requests for increased staff had been rejected or pared down by the House Appropriations Subcommittee. As a result, overworked local staffs complained that they could not adequately process existing applications, and they were reluctant to encourage others to apply.

17. Ira Dietrich, pseud., *Poor Damn Janeth* (Madison, Wisconsin: Bascom House, 1967).

18. For example, USDA, Economic Research Service, *Rural Poverty in Three Southern Regions: Mississippi Delta, Ozarks, Southeast Coastal Plain*, Agricultural Economic Report 176 (Washington, D.C.: GPO, 1970), *Characteristics of Human Resources in Rural Southeast Coastal Plain . . . with Emphasis on the Poor*, Agricultural Economic Report 155 (1970), and *Human Resources in the Rural Mississippi Delta . . . with Emphasis on the Poor*, Agricultural Economic Report 170 (1970).

19. USDA, Economic Research Service, *Status of Rural Housing in the United States* (Washington, D.C.: GPO, 1968), p. iii.

20. *Ibid.*, p. 5.

21. According to USDA-FHA, the agency financed approximately 50,000 housing starts or rehabilitations in 1968.

The Department of Agriculture was also charged with providing adequate food, for urbanites as well as farmers, for poor as well as better-off Americans. The story of food for the poor can be told only briefly here.²²

Initially, President Kennedy's administration seemed intent on alleviating hunger at home. Kennedy, as a Senator in 1959, had presented testimony that included evidence of widespread domestic malnutrition. He was criticized then by President Eisenhower for his campaign statement that some Americans go to bed hungry. In his first official act Kennedy enriched the domestic commodity distribution package for needy families, but from that point on progress was slow or negative from the viewpoint of food recipients. Distributed food remained an unwieldy grab-bag of inadequate nutritional value. Freeman worked strenuously for a food stamp program, which was tried out and then enacted in 1964. Participation was low—far less than under the commodity program—because of the terms. Those eligible determined that they could not afford stamps, and the bonus received was so small in many cases as to be barely worth the inconvenience and embarrassment. From 1964 to 1967 the administration doggedly implanted food stamps in the counties where commodities had been before, and in a few others, at first ignoring those areas where local governments did not wish to participate. It was clear from Freeman's statements, from the USDA's sales pitch, and from practice, that food stamps were a program to suit agricultural producers, welfare agencies, grocers, and local power structures. The administration preferred to believe that the program served most of those in need, and preferred not to test that belief very thoroughly.²³ When people started inquiring in 1967 and 1968 they found little relationship between the USDA's programs and the nutritional needs of low-income America. It was a major scandal, and a group of hunger-fighters, supported by labor groups and the liberal Field Foundation, made the most of it.

Freeman might have joined them, calling for a better understanding of food programs and food needs, and publicly demanding the resources needed for a good program. Instead he became defensive. He reacted first to the Clark subcommittee of the Senate Labor and Public Welfare Committee, whose members included Senator Robert Kennedy. This subcommittee had been informed that there was hunger in Mississippi, and had observed it first-hand. Testifying before this group Freeman engaged in a "shouting match" with Senator Jacob Javits of New York, charging that there was hunger in New York as well as in Mississippi, and then was unable to prove it when pressed to do so by Javits and the press.²⁴ Freeman immediately became the darling of the Mississippi congressmen because he had noted with satisfaction that every Mississippi county had a food program.

Meanwhile a Citizen's Board of Inquiry had been formed by the hunger-fighters. This Board issued its report, *Hunger USA*, late in the spring of 1968. It was a journalistic rather than a scientific report, but nonetheless persuasive. It revealed widespread hunger and cited by chapter and verse a number of in-

22. For a fuller amount of domestic food programs under Freeman, see Kotz, *Let Them Eat Promises*.

23. *Ibid.*, chap 4.

24. *New York Times*, 14 July 1967, p. 12.

adequacies of the food programs. Another report, *Our Daily Bread*, sponsored by several women's organizations, concluded that the school lunch program failed to reach low income families. Freeman agreed with the southerners that *Hunger USA* misrepresented conditions of hunger and malnutrition in the United States.²⁵ Nevertheless, in the midst of the disclosures, the USDA acted to require all poor counties to have a food program and to establish guidelines to make sure that free school lunches were provided as required by law.

Freeman was unable to absorb two new waves of criticism that broke on him in late May of 1968. Columbia Broadcasting System presented an hour-long documentary, a shocker called *Hunger USA*, which indicted the food programs. Hours later Reverend Ralph Abernathy and his Poor People were knocking on the door of the Department of Agriculture, making demands for immediate action.

Freeman published an outraged letter to Frank Stanton of CBS, charging that their television presentation was a "travesty on objective reporting" and demanding equal time. Stanton responded that Freeman's main complaint was that the USDA had been given too much blame and too little credit. Stanton said, "The issue of hunger in America transcends the superficial issue of assessing blame for its continued existence." When Freeman fired back another request for equal time, Stanton's response was to air *Hunger USA* again and to make the film available on Capitol Hill so that all lawmakers might have a chance to view it.

The Poor People's leaders had decided to emphasize food program changes, downgrading other demands. They were deeply concerned about hunger and better prepared to talk about it, and the issue was by this time highly visible. They must have hoped that Freeman had the power and the will to make immediate concessions on this issue. The Poor People suggested several changes: run dual programs so those who could not afford stamps could pick up commodities; provide free stamps for the poor; improve the commodity food package; and require all poor counties to have at least one program. The last suggestion was well on the way to fulfillment. On other points discussed below, Freeman's responses were expedient.

The Poor People charged that \$200 million in funds were available to make these changes, in the "Section 32" fund deriving from tariff receipts. Freeman said that this money was not his to spend, presumably because of understandings with the President and Congress. He said dual programs and free stamps were illegal, as indicated by legislative intent expressed during the development of the law, but Freeman's statements had been a major factor in determining the content of that legislative history. Freeman did not want to be as generous to poor people when the provisions were enacted as the Poor People's leaders now wanted him to be. So he kept telling them he could not act because he did not have the authority or the money, and yet he maintained—before, after, and even during the Poor People's Campaign—that he did not want any more authority or resources, with one exception: he wanted more money for the food stamp program. While the siege was going on, Freeman raised his requested food stamp

25. U.S. Congress, House, Committee on Agriculture, *Amend the Food Stamp Act of 1964, Hearings*, 90th Cong., 2 sess., 1968, p. 92.

increase from \$20 million to \$100 million, and told the House Agriculture Committee that an efficient program would cost about \$1.5 billion, compared with \$360 million being spent for both programs at that time.

According to Nick Kotz, Freeman tried repeatedly during this time to get President Johnson's support for increased food-stamp funding, but was hardly able to get messages through to him, much less convince him. Johnson, in turn, was being pressured by Whitten and others. When Vice President Hubert Humphrey asked the President to promise larger amounts for food stamps, Johnson replied, according to Kotz, "I've given my word to Congress [on cutting spending]. If you can get Congress to do something, fine, but we've made a commitment. We've talked to Ellender, Poage, and Whitten. I'm not going to be the one to break that agreement. That's what they're waiting for up there. If I break the agreement, we'll never get anything else through Congress."²⁶

The strategy of relying upon the liberal conscience and public opinion against entrenched power had not worked, at least over the short run.

On the issue of race discrimination, the Poor People's demands were based mainly on a 1965 study by the U.S. Civil Rights Commission. Surveying employment practices in major USDA agencies the Commission had found that virtually all employees in responsible positions at all levels were white. With respect to distribution of program benefits by race, the Commission noted that the combination of government programs and inputs of technology had left Negroes progressively worse off. It concluded, "there is unmistakable evidence that racial discrimination has served to accelerate the displacement and impoverishment of the Negro farmer."²⁷ The Commission found evidence of discrimination in the distribution of acreage allotments under farm commodity programs. It noted that services offered by Farmers Home Administration and the Cooperative Extension Services were on a Jim Crow basis, with minority services being inferior in quality and scale and even completely different in substance from those received by white farmers.²⁸ Many other instances of discrimination were cited.

Freeman used this report as a measure of the actions needed to fulfill his responsibilities under the Civil Rights Act of 1964. He established a departmental committee and a citizen's committee to supervise implementation of the Commission recommendations. By 1968 many things had been done—particularly to abolish segregated meetings and other forms of overt segregation—but the underlying inequality in services and employment remained. Freeman's citizens' committee concluded that he had been the unhappy victim of much stalling and deceitfulness: "Secretary Freeman is and has been completely sincere in his desire to achieve full equality and opportunity in departmental programs and employment. We feel we share with him the frustrations stemming from the failure of the department to meet the ideal of that full equality."

26. Kotz, *Let Them Eat Promises*, pp. 147-92.

27. U.S. Commission on Civil Rights, *Equal Opportunity in Farm Programs: An Appraisal of Services Rendered by Agencies of the United States Department of Agriculture* (Washington, D.C.: GPO, 1965), p. 99.

28. *Ibid.*, pp. 38-67.

The Civil Rights Commission, also in a 1968 review, was not willing to concede that Freeman had tried hard. Its executive director concluded, "Possibly one of the most enduring impressions of the Commission throughout its various opportunities to observe the Department of Agriculture over the last four years is that officials charged with administering agricultural programs do not feel and have not been told that equal opportunity is a matter of highest priority in their work."²⁹ Freeman took strong exception to that statement.

The monitoring instruments of the USDA tended to hide discrimination rather than to disclose it—for example, the compliance certification signed by a local officer, and the use of local or agency officers to supervise compliance by their own agencies. The picture of compliance presented from these procedures was very different from the facts revealed by statistical data on minority participation and reports of investigations by the USDA's office of the Inspector General. The Civil Rights Commission said, "Civil Rights audits conducted so far by the OIG (Office of Inspector General) have demonstrated extensive non-compliance and overall program weakness in several agencies. These findings are in sharp contrast to the picture of compliance presented in other reporting activities of the Department."³⁰ But the USDA's Office of Inspector General had no power to take action on what it found, and in practice little or no action was taken.

Therefore the Commission urged the development of a strong enforcing agency under the Secretary. Freeman had appointed an assistant for civil rights who was without specific authority and specific funding. In the absence of a vigorous office that could spot noncompliance and could improve the compliance criteria, the procedures became formalities, and the criteria became bureaucratic rationalizations. Congressional committees which had been keen to catch the Department playing the fool in its grain-storage operations had far more reason to investigate its civil rights record. This record can be illustrated by findings with respect to two major agencies—the Cooperative Extension Service and the Agricultural Stabilization and Conservation Service.

The Extension Service began as a federal-local-Farm Bureau partnership designed to bring information from the land-grant colleges to dirt farmers that would help them improve their farms, environment, and society. However, Extension became the nearly exclusive property of the farmers that it had first served, and then became almost a superfluity for these commercial farmers who no longer needed an intermediary to the sources of technical knowledge. Tightly controlled farmer committees or county governments ran the county extension offices, often enforcing their prejudices against new ideas or activities suggested by the state extension office. But state extension offices received a magnificent

29. Letter from Howard A. Glickstein to Secretary Freeman, dated 17 January 1969, which appeared in U.S. Congress, Senate, Select Committee on Nutrition and Human Needs, *Nutrition and Human Needs, Hearings*, 91st Cong., 1 sess., 1969, pt. 8, p. 2684.

30. U.S. Commission on Civil Rights, Staff Paper, *The Mechanism for Implementing and Enforcing Title VI of the Civil Rights Act of 1964: U.S. Department of Agriculture* (July 1968), p. 35, which appeared in U.S. Congress, Senate, Select Committee on Nutrition and Human Needs, *Nutrition and Human Needs, Hearings*, 91st Cong., 1 sess., 1969, pt. 8, p. 2704.

federal subsidy, especially in southern states, based upon the size of rural populations.

Following the 1965 Civil Rights Report, Freeman took steps to integrate the southern services. Three years later the Civil Rights Commission did a study of the Alabama Extension Service, whose integration plans had been submitted to the USDA. By that time black and white extension workers shared local facilities, and some white 4-H clubs had one or more black members. Negroes did not share positions of authority, and of 112 employees in the State Extension office, only 8 were Negroes. Negroes did not receive equal salaries for equal work, even though they often had higher academic degrees and more experience. Job classifications for Negroes were different and less impressive. To illustrate: two Negro women workers were known as district home agents, with salaries of \$10,800, while their four white counterparts were known as associate extension district chairman, with salaries of \$12,000. The Negro women served twice as many counties as the whites. The Commission noted that no chief county extension agent was Negro³¹ (none was Negro anywhere in the U.S.).

Services to farmers, while formally integrated, were virtually segregated in practice, the Commission found. Potential workload of the average Negro male extension agent (workload calculated as the number of Negro farm operators and farm boys) was about six times that of the white agent, and the same was true for women agents. In this way, Alabama Extension divided its 1967 federal subsidy between the races, a subsidy amounting to \$2.6 million dollars, or 41.4 percent of the total state Extension budget.³²

Integration in the Agricultural Stabilization and Conservation Service, the agency which distributes farm program subsidies, perhaps got even more approving winks from southerners. Some Negro farmers were elected to the ASC community committees, whose only practical function is as an electoral body to select the three-member county ASC committees. This indirect election system produced only three Negro county committeemen in the whole of the United States in 1968. But even that record was better than the system for appointing state and local managers. The appointed state ASC chairmen, who hire the staffs, were white in all cases, as were the majority on all the three-man state committees. A few states had one Negro state committee member who had been selected by state politicians. In 1968 the local ASC office managers, who are the people really in charge at the county level, were white in all U.S. counties having a significant number (10 percent or more) of Negro farm operators, and the farmer fieldmen who are the crucial link in the organization network and who tend to organize local elections, were also all white. Therefore the big farm agency was still lily-white when Freeman left it, except for some Negroes in meaningless positions, and a few selected Negroes in positions proximate to power.

The Poor People's Campaign of 1968 provided occasion to consider the record of USDA service to blacks and to all of the rural poor. The bedraggled serenaders

31. *Hearing before the U.S. Commission on Civil Rights, held in Montgomery, Alabama, April 27-May 2, 1968* (Washington, D.C.: GPO, 1969), pp. 748-49.

32. *Ibid.*, p. 757.

who marched around the USDA in 1968 represented the rural poor who were being counted as beneficiaries of programs they may never have heard of, which were being run by and mostly for that class of farmers with above-average incomes. The demonstrators were Negro Americans who for generations had, with poor whites, done the work on Southern farms, and they also represented Mexican-Americans who had done the stoop labor everywhere, and poor whites who made up the majority of those now disinherited from their work role in agriculture.

It was not as if no one knew that these people had been excluded from both the economic system and the political system. The BAE's 1945 Conversion Plan for the Cotton South had recognized this, had proposed to do something about it, and had been firmly put to rest. Other earlier USDA initiatives had met the same fate. Exclusion of these people had turned out to be a fact that had to be lived with, at least for a while. But by the 1960s blacks as well as many others had decided they would no longer tolerate an environment of overriding race discrimination and inequality. The USDA liberals did not join in that decision. The USDA administration, when the national spotlight fell upon it, did not come forward to enlighten the American people about poverty, racism, and hunger in rural America. It did not wholeheartedly join the black Americans and other liberal groups but kept them at arms length and in retrospect was an instrument in frustrating their efforts to achieve substantial remedies within the system.

April 1968 - Ohio State Univ.

SOME IMPLICATIONS OF INDUSTRIALIZATION OF THE FOOD SECTOR OF THE U. S. ECONOMY

Discussion

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Shaffer's paper is, in my opinion, an excellent one and a good keynote for this seminar. Using proper clinical procedure, Shaffer places diagnosis prior to prescription. The diagnosis that emerges, as I evaluate it, is that science and technology are producing changes in the food sector more rapidly than these changes can readily be digested. No pun intended. Shaffer cites striking figures on the pace of change. In a 14-year period, man-hours spent producing cotton in the United States fell 80 percent. The accumulation of these people in our urban ghettos is in some way related to our recent riots. Ray Goldberg, in his new book Agribusiness Coordination, states that from 1947 to 1966 the number of farm workers in the United States fell 44 percent. The Food and Fiber Commission says that in the last 10 years, one farm out of every four has ceased to exist. Shaffer cites the tension and frustration that have developed in the farm areas. He says the system is coming unstuck. This is in spite of substantial gains, during the last decade, in per capita real income for farm people. It may well be that the uneasiness in the agricultural areas arises in large part from psychological reasons. Agrarianism is being assaulted by technological change. Familiar ways of doing things are disappearing and new values have not emerged to take their place.

There is little question as to what has been instrumental in causing the profound technological changes that Shaffer describes. Chiefly responsible are tremendous inputs of research and education, about half of which have been supplied by public agencies. Those who are industrializing agriculture are simply applying the results of this research. The industrialization of agriculture, which gives rise to the problems we will discuss in this seminar, is not some autonomous managerial invention; it is the natural consequence of our scientific research. Our research inputs have been very great. According to a study of the 1915 to 1960 experience, done by Robert Latimer at Purdue, State Experiment Station expenditures for research from federal and state appropriations and from private sources increased by a compounded annual rate of 11 percent. Increases have continued into the 1960's, though recently the rate of increase has been less. Expenditures for extension work have shown similar behavior.

On the cover page of Shaffer's paper, offered without comment but with seeming approval, is a quotation from Alfred North Whitehead: "The major advances in civilization are processes that all but wreck the societies in which they occur." The idea here is one to which I personally subscribe: that the relationship between the rate of technological change in a society and the general good that accrues

to the society is in the form of a curve, with a low reading for a semi-stagnant economy, reaching a maximum at some intermediate rate of technological change, and taking on a negative slope when the rate of change exceeds some optimum point. This is contrary to the conventional view, held by almost all physical scientists, that the relationship of the rate of technical change in a society and the general good resulting therefrom is positive, linear and steep. The prevalent view equates change with progress and holds that technological change is good, that more change is better, and that the most rapid possible technological change will result in the most desirable situation.

Even if one accepts the idea that the relationship is curvilinear, he still will be unable to chart it accurately, or to indicate our present position thereon. I judge that Shaffer feels there is such a curve and that we may be approaching its apogee, or we may be at it, or we may be somewhat past it. My own view is that we are near enough to the maximum point on this curve to give us pause when we consider policy alternatives. We are all familiar with the Phillips Curve, which postulates incompatibility between the twin goals of stable prices and full employment. There must be some trade-off between them. There may well be a comparable trade-off between the twin goals of stability and progress in the agricultural sector, and we may be at a position in which the incremental value of a unit of stability exceeds the value of yet another increment of what we call progress.

If change is indeed coming more rapidly than it can readily be assimilated, then the logical thing would be to check the flow of public funds which fuel the change. The total input for agricultural research and development, public and private, is now approximately a billion dollars a year. We are spending approximately three billion dollars a year through acreage retirement programs, to induce farmers to forego full use of the new knowledge. It must be that we have collectively passed some form of adverse judgement on the utility of our new agricultural knowledge or we would not undertake such expensive programs to avert its full use.

Even to raise a question before a group of Land Grant college people about the appropriateness of the Experiment Station effort in research may be interpreted as an act of heresy. Behind our present effort is a century of precedent and momentum. We tried to change the direction of research while I was in the Department of Agriculture, away from strict production research and in the direction of facilitating adjustment. About all that happened was that we succeeded in renaming a few projects, setting the word "adjustment" inserted in the titles, with no real change in the nature of the studies.

Our farmers now supply America with the best diet in the world at the lowest relative cost in history, 18 percent of the

consumer's income. We might well ask whether farmers should be subjected to a yet faster pace of change, to be industrialized even more rapidly, in order to drive that figure a point or two lower. It is a fair question, not to be answered dogmatically or out of a conditioned reflex based on a hundred years of Land Grant philosophy.

* Many years ago in England the industrial revolution resulted in dislocations and social problems that were largely ignored. It has become common to criticize the leaders of that day for their callousness. It may be appropriate to ask whether we who promote today's agricultural revolution may in time come under similar indictment.

There are two persuasive arguments for a continued high level of the public support which undergirds the drive toward an industrialized agriculture. First, it is important that there be cost-lowering technology to permit us to compete more effectively in international markets. Second, there will be need for agricultural technology with which to help meet world food problems. It may be that these two considerations outweigh in importance all of Shaffer's and my own misgivings about the rate of change, the industrialization of agriculture and the erosion of recognized social values. We may be on a treadmill of industrialization that we can't stop.

You will note that I speak more from a sense of concern than from conviction as to precisely what should be done. But I do have some general views. I think we should reorient our research, working more on agricultural adjustment, rural poverty, and world agricultural development. The invention of new institutional forms that would help more family farms to survive the technological revolution, and the development of new ways to help farmers preserve their decision-making role seem to me priority items for research and policy.

In any case, the problems that now confront us pose a real challenge. They are the problems of dynamism rather than stagnation of abundance rather than scarcity. That fact that research has helped to bring these problems about should give us added incentive to work toward their solution.

I like Shaffer's second cover-page quotation, this one from Marshall McLuhan: "There is absolutely no inevitability as long as there is a willingness to contemplate what is happening." And it is vital to know what is happening. No prescription is likely to be helpful unless it is based on good diagnosis. I think Shaffer has told us what is happening with a good deal of accuracy.

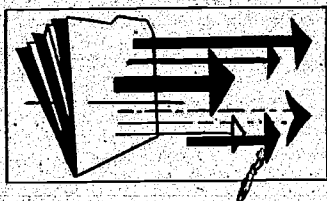
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**A Report of the
Joint USDA-NASULGC Study Committee
on Cooperative Extension**

**A People
and a Spirit**

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438.



Summary of Recommendations

This report was finalized during a period of great anguish for the United States. The latter stages of the Joint Study Committee analysis coincided with the assassination of both a world renowned Negro civil rights leader and a white candidate for the presidency of the United States. These two events, coming only two months apart, only five years after the assassination of President John F. Kennedy and concurrently with student violence on several prestigious university campuses and the sad spectacle of Resurrection City in the nation's capital, lent urgent emphasis to the social, moral, and economic ills of the nation. The pervasive social problems of the United States are compounded by an economic revolution of great magnitude which has accentuated the disparity between different economic levels.

The problems of the United States indicate that the universities of our nation as well as executive branches of the federal government hold a responsibility for helping people solve their problems created by the social and economic revolution. The options are growth and development of a nation under a unique structure for self government or anarchy, decline, or decay.

The basic thrust of recommendations contained in this report calls for the Cooperative Extension Service to adapt its staff and program effort to serve more adequately the broad range of social and economic problems of the nation while strengthening its assistance to the agricultural sector of the economy. Another basic recommendation calls for Cooperative Ex-

ension Service to stand ready for an organized, active, and significant role in technical assistance and development programs of the less developed nations of the world.

The Committee believes that Cooperative Extension Service is an institution capable of significant participation in national efforts of an affirmative nature, providing it has the resources and the willingness to move aggressively into the arena of social and economic development on both a group and an individual basis. The quality of life of our people and their organizations must benefit from educational processes with a pragmatic orientation. It is for these reasons that the Committee recommends major expansion of activity in programs dealing with social and economic development and quality of living.

The analysis conducted by the Committee of current Extension programming indicates that changes have been and are being made by Extension. In every state, changes have shifted the emphasis from an individual and production orientation to include a socio-economic program base. The Committee commends the efforts already made and takes note of attitudes already evident.

The survey of Directors of Cooperative Extension indicates that there is a willingness on the part of Extension administrators to further adapt programs to meet urgent priority needs of society. The survey also indicates that the degree of change can be greatly accelerated if sufficient financial resources are provided to allow for meaningful and significant expansion

of program efforts in the nontraditional areas of program activity (see Figure 4, page 34).

The increases in effort recommended in this report (Figure 7, page 76) represent the judgment of the Committee as to requirements if Cooperative Extension Service meets current problems in a satisfactory and significant manner. The projections of the Committee indicate the minimum resources required to do the job that needs to be done. If additional resources do not become available, Extension must still change and adapt its programs but will be forced to do so at a much slower rate and with greater limitations.

The Congress and the state legislatures are

urged to examine the latent as well as existing capabilities of the Cooperative Extension Service as one of the most suitably oriented and organized institutions of our society for merging the educational thrusts of government and universities toward solution of basic problems of the society. The Committee calls upon the Extension directors of the nation and the Federal Extension Service to view these challenges and opportunities for larger service squarely and affirmatively and to provide the leadership required in meeting them cooperatively with other institutions created to assist the individual and the society.

Recommendations on Role and Relationships

An effective program of Extension requires an identification of Extension's role in the field and carefully established relationship patterns with other agencies, organizations, and institutions. The Joint Study Committee recommends that:

- When the USDA or the universities contemplate major changes in program scope, direction, organization, or operations substantially affecting the Cooperative Extension Service, the other partner should be fully involved in the decisions. The Memorandum of Understanding should include a provision to this effect.

- The Cooperative Extension Service should be the "educational arm" of the USDA and educational support arm for other governmental agencies.

- Extension should make conscious and deliberate efforts to strengthen the local Cooperative Extension Service office in its role as a primary source of information and focal referral point for the many programs involving direct relationships between units of government and the people, especially in rural areas.

- The local Cooperative Extension Service office should be the public's point of contact for the entire land-grant university.

- The existing relationships with county governments should be maintained. Efforts should be made to involve more city governments in the financial support of Extension programs, especially those which are directed more toward urban audiences.

- In the opinion of the Committee, the ap-

propriate point for administration of various Extension functions funded from different sources within the federal government is at the university level.

- Since no single college of the university can contain all of the disciplines needed for Extension work today, the university administration should develop administrative mechanisms which will provide access to and support from all colleges and departments which have competencies relevant to the Extension function.

- The Committee believes that continued official affiliation of Cooperative Extension Service within the Extension Section of the Division of Agriculture of the National Association of State Universities and Land-Grant Colleges is appropriate for the USDA-related role.

- The present relationships with county governments should be maintained, but more city governments should be involved in financial support of Extension programs directed at urban audiences.

- Since the functions of Cooperative Extension Service as recommended by the Joint Study Committee are university wide, it is recommended that the organizational structure of the Council on Extension of the NASULGC be modified to provide for participating membership for Directors of Cooperative Extension Service or their representatives in addition to continued membership in the Division of Agriculture.

- A close and continuing working relationship should be maintained between the Extension

ation Committee on Organization and Policy and the Office of International Programs of the National Association of State Universities and Land-Grant Colleges.

- The Cooperative Extension Service should

give increased attention to staff training and development.

- The Cooperative Extension Service should cooperate closely with other agencies and institutions.

Program Recommendations

The efforts already made by Cooperative Extension Service to improve the effectiveness of its programs should be acknowledged. In recent years, there has been a marked improvement in the professional qualifications of specialists. Many area or multi-county specialized agents have been assigned. Efforts have been increased in adaptive research, and increasing attention is being directed toward educational programs which relate agricultural production enterprises to the total sales and distribution system of the nation.

The role of the Extension agent has increasingly involved a commitment to the community and those groups active within the community. Developmental programs have been added which deal with a broad range of social and economic factors. Family and youth programs

have become increasingly effective in the urban environment. New arrangements with agencies and local organizations have emerged. Increasing emphasis has been given to staff training and development and considerable progress has been made in the level of formal training possessed by Extension personnel.

These changes have largely been made possible by a reallocation of resources available to Cooperative Extension through its traditional channels.

The Joint Study Committee acknowledges the changes which have been made by Cooperative Extension in adapting programs to current needs of society. The Committee believes, however, that significant additional modifications will be required in the decade ahead.

Recommendations Pertaining to all Program Elements

The Joint Study Committee recommends that the Cooperative Extension Service seek maximum effectiveness from its manpower resources by:

- Employing more specialized area agents.
- Upgrading the professional competence of personnel.
- Increasing use of specialists holding joint research, teaching, and extension appointments.
- Experimenting with new organizational structures such as multi-county staffing and specialist teams.

- Employing personnel trained in disciplines relevant to the assigned educational role.

- Increasing the use of consulting teams on a contract basis for special problems.

- Increasing the use of non-Extension personnel hired for specific work on a part-time, one-time, or periodic basis for help in disciplines not available on the regular staff.

- Making the best use of available staff by utilizing new electronic teaching devices, new communications systems, and new teaching techniques.

Recommendations Pertaining to Specific Program Elements

Agriculture and Related Industries

National goals related to economic growth,

technological change, and to agriculture (page 6) demand that Cooperative Extension maintain an effective program in agriculture and

its related industries. The Joint Study Committee recommends that the Cooperative Extension Service:

- Increase program emphasis in marketing and farm business management.
- Reduce the relative percentage of effort in husbandry and production programs.
- Take advantage of the capability of commercial agricultural firms to provide a part of the technological information.

Social and Economic Development

National goals of the democratic process, education, the democratic economy, economic growth, living conditions, and health and welfare may all be served to some degree by Cooperative Extension efforts in social and economic development (see pages 5-6). These efforts can effectively assist in alleviating problems related to the American community and unequal opportunity. The Joint Study Committee recommends that Extension should:

- Expand efforts in educational programs of social and economic development.
- Make significantly greater efforts to assist low-income farmers in decisions other than agricultural production, including selection of alternative vocations. In addition, Extension's efforts to serve the low-income farmer should include attention to group, community, and institutional contributions designed to improve communities and the general economic welfare of the areas in which these people live.
- Expand program activity dealing with natural resources and the environment. In conducting these programs, Extension should provide full factual information regarding causes of such problems as stream or air pollution, source and impact of careless waste disposal, implications arising from competing land and resource use patterns, and enter the controversial arena of public concern by stating and clarifying natural resource issues in the minds of the public.
- Build upon Extension strengths in rural areas, but also increase the commitment to the central city in the years ahead.

Quality of Living

National goals related to the individual,

equality, the democratic process, education, the arts and sciences, the democratic economy, technological change, and living conditions (pages 5-6), can all be aided by effective Extension programs related to the quality of living. Satisfactory and fully effective response by the Cooperative Extension Service will, however, require major shifts in emphasis, innovation, and a high degree of coordination with other agencies and institutions. The Joint Study Committee recommends that the Cooperative Extension Service should:

- Expand Extension programs of youth and family education.
- Expand sharply the educational programs to help the disadvantaged and the alienated.
- Emphasize the disciplines of social and behavioral sciences as well as those of home economics in filling positions to support future programs related to the family.
- Assign personnel to work in Extension youth programs who are qualified in disciplines relevant to the education and motivation of youth.
- Adapt and expand 4-H as well as provide additional youth educational activities where 4-H is not a suitable mechanism for meeting specific problems.
- Undertake continuing national as well as state dialogue with leaders of cooperating organizations, to seek ways by which each organization can assist in meeting the emerging broad human development problems.
- Conduct programs in the quality of living category in urban as well as rural areas.

International Extension

The national goal of aid to less developed nations demands a transfer of technology and its practical application. The Cooperative Extension Service has proved its capability in this arena. Given a mandate and financial support, it can contribute significantly to this national goal. The Joint Study Committee recommends that the federal government should:

- Evolve long-range program strategy for the U. S. overseas agricultural development programs. The strategy should provide for a formally planned and specifically financed Ex-

tension component and define the nature of relationships under which such long-term programs will function.

- Make efforts to adapt existing U. S. institutions, including Cooperative Extension Service, to long-range overseas programs of agricultural development.

- Direct major initial emphasis in Extension

programs abroad toward increased agricultural production and marketing.

- Develop Cooperative Extension field support for approved agricultural development activities sponsored by private industry in other nations.

- Establish International Extension Training Centers at one or more land-grant universities.

Special Recommendations

In its infancy, the Cooperative Extension Service was dedicated to improving the lot of a class of people who were in fact disadvantaged compared to the rest of society. The emergence of the Extension function and the response by innovative and concerned individuals has led to an increased involvement with people in the middle- and upper-income levels. The current urgent problems of the United States have refocused attention on the problems of those who are alienated by race, income, or other factors. For these reasons, the Joint Study Committee recommends that:

- The Cooperative Extension Service should increase its emphasis on programs designed to motivate and otherwise assist the disadvantaged and the alienated.

- Special funds be made available to each State Cooperative Extension Service for the express purpose of working with other colleges and universities in the state that possess the needed competencies to help Cooperative Extension achieve its stated objectives.

- The predominantly Negro land-grant colleges be given greater opportunity to contribute to solution of these problems. The Committee

recommends the appropriation of sufficient additional funds by the proper federal, state, local, and private agencies to substantially strengthen their over-all capability.

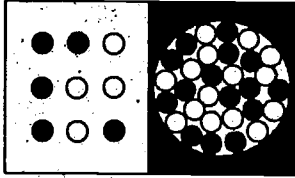
- In those states where more than one land-grant institution exists, cooperative relationships be developed which will permit an effective program partnership between the two land-grant institutions. This relationship should be based upon continuing additional funding for the Extension work to be conducted by the predominantly Negro land-grant institution. In the use of these funds the relationship should provide:

Cooperative program development

Cooperative program execution

Continuing joint program review.

Coordinated plans for cooperation between the predominantly white and predominantly Negro land-grant institutions for Extension work shall be an integral part of the plan of work submitted by each State Cooperative Extension Service for approval by the Federal Extension Service.



Social and Economic Development

Extension programs in social and economic development touch upon at least five of our national goals: The democratic process, economic growth, education, living conditions, and the democratic economy. They also are related to current national problems of economic inequality, social inequality, crime, domestic peace, and problems of the American community.

Cooperative Extension has developed the capacity to assist in metropolitan areas. Its major thrust and capability, however, lie in the non-metropolitan sections. The Joint Study Committee carefully considered the role of Extension from a geographic as well as a subject matter and clientele standpoint.

Cooperative Extension has a legitimate role in helping people solve problems, wherever they may live—on farms, in the village, in the open country, in the central city, or in the suburb.

The Committee recognizes that Extension now has greater involvement in rural areas than it has in the cities. However, community development programs in rural areas often must consider urban impact upon the smaller communities. Public affairs education usually includes total policy relationships which weigh influences of rural upon urban and vice versa. Uses of natural resources, including recreation and such environmental factors as air and water pollution, involve rural-urban interaction. This indicates that artificial geographic limitations upon Extension's work in social and economic development are unrealistic.

Extension's most significant activity in the

central cities has developed in the areas of social and economic development and quality of living. Extension youth programs have succeeded in many large cities. Metropolitan home economics, public affairs, and other training programs also have been undertaken rather extensively in some states. These educational efforts indicate great promise for the future.

The Cooperative Extension Service must not disavow its existing responsibilities to and activity with the nonmetropolitan areas. But the Committee recommends that Extension evolve its future programs on a basis of public need rather than upon artificial geographic boundaries. While the Cooperative Extension Service will continue to build upon its strengths in rural areas, there should be an increasing commitment in urban areas in the years ahead.

In developing a position on Extension's responsibilities in metropolitan areas, the Committee examined the university-related role of the Cooperative Extension Service as an off-campus educational activity.

It found that except for obvious fiscal limitations, Extension's ability to extend the modern land-grant university to the people is limited only by the breadth of the university and Extension willingness to function university-wide.

Extension is operating in a complex society today and must expect to function as only one of many public agencies, particularly in the cities. Even in rural areas, Cooperative Extension often makes its greatest contributions through joint efforts with other agencies. It

Table 9

Summary of Projected Changes in Extension Program Emphasis Expressed in Time Allocated to Each Major Activity Contributing to Social and Economic Development, 1966 to 1975

Program Area	1966 Man Years	% Change 1975	1966 % of total effort	Projected % of total effort—1975
Community Resource Development*	1,650	+180	70	47
Natural Resources	709	+ 98	30	14
	2,359	+154		
Low-income Farmers**	1,900	+100***	—	39
	4,259	+130%	100%	100%

*Includes community development, public affairs education and training of community decision makers, employees, and public officials.

**1966 program inputs included in agricultural production and services. Increases are assigned social and economic development for 1975.

***Percentage increase computed from current base of 1,900 in agriculture. In addition, 5,000 nonprofessional man years are recommended for assistance to low-income farmers.

has a great and sometimes overlooked capability to enhance interagency relationships and to encourage community use of services available from action agencies. This is an important function.

The recommendations in this report recognize Extension's developmental role in support of USDA programs and land-grant university goals. The broadened programs envisioned

would also place Extension in a key role as a social and economic development agency for the land-grant universities.

Social and economic development programs include community resource development, natural resources, and additional work with low-income farmers. Committee recommendations for future emphasis in these program areas are outlined in Table 9.

Community Resource Development

A complaint today is that too many agencies are duplicating efforts on closely related problems. Extension can bring cohesiveness into many community development programs through its role in educational and organizational leadership. It can help people obtain the right kind of planning, financing, and technical aid from other agencies. An important future role may be to assist various ethnic or economic groups in developing working relationships with community service agencies.

Another role for Extension is in providing in-service training for public employees and decision makers. Many elective or appointive officials come to office with only the most meager knowledge of the decision making process, the social action process, and related knowledge in public administration. As Extension becomes more universally wide in concept it will acquire more capability to provide training for such officials and for the employees of local governments. This mission is not a responsibility of the USDA. Extension will be involved to the extent that it can muster the university backstop for such training programs.

The universities have been experimenting with various organizational frameworks for more effectiveness in community development. This is one reason some land-grant universities have combined their extension services.

Regardless of the organizational structure, community development needs three types of personnel: (1) A generalist resident in the local community, (2) state Extension specialists at the university, and (3) part-time consultative help from specific disciplines.

The generalist in community and institutional development who is a resident can relate to the people of the community on a continuing basis. In effect, he should be to the community what the traditional county agent has been to farmers. This generalist must be backstopped by experts at the university, just as county agents are backstopped by specialists. He also needs to be able to call on resource people from practically every university discipline. Expertise from some disciplines may be needed only half a dozen times a year, but it may be crucial at those times. The consultant or part-time specialist can meet demands of this nature. Ex-

panded resources will be required if Extension fully meets public needs in community resource development.

The Joint Study Committee recommends a major expansion in program resources for community resource development education. An expansion to nearly three times the present manpower levels is projected.

Greater expansion will be needed at the state level than locally, since the primary need will be for specialists trained in community development processes. These specialists will conduct the professional training at the local level. But staffing of generalists in community development assignments must be provided for at the local or area office if specialized assistance is to be meaningful.

Public Affairs Education

There also is need for substantial expansion in Extension's public affairs education programs.

Public affairs education is concerned with educating all citizens. Modern communications systems, coupled with the field staff resources of the Cooperative Extension Service, make it possible for a relatively small number of specialists to reach a large portion of the total

population with educational programs. Therefore, the manpower increases in public affairs education concerned with group decisions should be achieved primarily by increasing the number of specialists. The Committee recommends about a 50% increase in county and area staff and a tripling of the state specialist staff for public affairs education programs—an increase of approximately 100% in public affairs education.

Natural Resources

It has been customary to consider Extension's natural resources programs as principally related to soil, water, and forest conservation. Only in recent years has the full magnitude and complexity of the natural resources problem become apparent.

We live in a nation which has drawn much of its greatness from its natural resources. It is imperative that sound and acceptable plans be made now to conserve them. Emotions run strong and opinions vary. Viewpoints differ from local to state to national levels. Educational programs based on fact are mandatory.

In the past few years, Extension agents have been involved in litigation regarding pollution of underground water—and land—by a U. S. arsenal; in disputes regarding loss of crop production and real estate value from waste products of industrial firms; in arguments over allocation of river water between states as well as between agricultural and industrial users; in disputes concerning effects of the pumping of underground water upon surface water rights; on effects of air pollution on urban vegetation; and in multiple versus single use philosophies of our public as well as private lands. Extension must assist individuals and community leaders in planning for the best long term uses of natural resources including the land itself. Zoning, reallocation of land use, and related factors must be given increased attention by Extension in the years ahead.

No agency has a more appropriate background, more extensive access to knowledge, or more legitimate reason for concern than Extension. It must now carefully review its responsibilities to the nation to conduct thoughtful and intensive educational programs on the proper use and conservation of our natural resources and the development of public policies which will direct those uses. Here Extension has an opportunity to guide the evolution of future policies in this field.

The Committee recommends that the Cooperative Extension Service staff for natural resources education programs be expanded by about 100% by 1975, along with expanded administrative and training support. It is suggested that at least one-third of the new positions be specialized assignments, with at least two-thirds of these at the county or area level.

The Committee further recommends that Extension provide full factual information regarding causes of problems such as stream or air pollution, source and impact of careless waste disposal, and implications arising from competing use patterns, and enter the controversial arena of public concern by stating and clarifying natural resources issues for the public.

This recommendation does not imply departure from Extension's educational role. In

the natural resource arena, facts are needed to offset emotion in establishing public policy. Extension should be prepared to lead the develop-

ment of public opinion by providing relevant, accurate facts, even if it must take a position by doing so.

Low-Income Agriculture

The 2.4 million farm families with gross annual incomes of less than \$10,000 represent a substantial fallout of families from American life. Increased effort for these people is necessary if the Cooperative Extension Service is to contribute significantly to accelerating the economic and social development of rural areas and improve the quality of life of these families.

Extension must work toward developing the capacity of these farmers to exploit income opportunities available to them. While the increases in net income for these families will be relatively modest, a broad scale educational effort that reaches a substantial portion of these low-income farmers can have an impact upon the economy of rural areas primarily by reducing or minimizing a highly negative economic and social factor.

An expansion of Extension work with low-income farmers is included under economic and social development because most of this work must involve groups and environmental factors which do not relate to agricultural production.

This target group may need:

- Basic adult education, including, sometimes, instruction in reading and writing.
- Information on results of research, specific recommendations, and encouragement.
- Consultation to help them relate facts to their problems; help on how to take action as groups.
- Instruction in principles of physical, biological, and social sciences.

Cooperative Extension has always worked with farmers. It knows how to reach them and has been effective with many. Although Extension cannot supply all the requirements, its personnel can be alert to needs and encourage low-income farm families to obtain assistance. Basic adult education, for instance, can and should be handled by the public schools, but Extension workers can help identify those who need this education and help motivate them to take part in such programs.

Income alternatives should be explored. Extension staff will need to work with the Employment Service and other manpower agencies to compare realistically nonfarm employment

potential with on-farm possibilities for these people.

Personnel working with this special category of farmers will need training in understanding low-income farmers, how to reach them, and how to be effective with them. They will require more than an average background in social sciences and communications. They must take the initiative in contacting poor people. Individual counseling will be a major thrust. There will be follow through to encourage these families and help them achieve goals which they establish. This is important because many of the low-income farmers are frustrated from continued lack of success.

Farmers who need services such as credit or additional basic education must actually be put in contact with those who can deliver the service. Linkage will be established with other programs directed to poor people and every effort made to direct a package of services to the individuals. The possible role of cooperatives should be explored and explained to the farmers and the cooperatives.

These farmers will require leadership development, help in getting organized, and in carrying out responsibilities as participating members of society.

The Joint Study Committee estimates that one agent, assisted by three subprofessionals and backed up by one specialist for six agents could work with 500 low-income farmers over a period of years. Using the estimate of 1.7 million low-income farmers falling below poverty levels, this would require a total staff of 3,360 agents, 560 specialists, and 10,080 subprofessionals plus about 200 additional supervisory and training personnel if all low-income farmers were helped simultaneously. Numbers of low-income farmers have been declining. The Committee believes that a doubling of current efforts would be a more reasonable goal than expansion to mount a full scale program for 1.7 million low-income farmers. A doubling of the existing professional staff of 1,900 should be accompanied by addition of 5,000 subprofessional assistants.

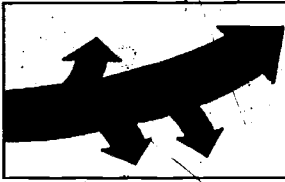
If the role of Cooperative Extension Service, as visualized by the President's Commission on Rural Poverty—and endorsed by the Joint Study Committee—is to be effectively performed, resource expansion must be provided.

Effective work with low-income farmers will require attention to disadvantaged including various ethnic groups such as Negroes, Mexican-Americans, American Indians, migrant workers, and part-time workers. These people must be assisted in helping themselves. They also need help and encouragement in developing their own leadership in order that they may constructively interact with society.

The Joint Study Committee recommends an increase of resources for work with low-income

farmers of 100%, these efforts to be concentrated upon the nonagricultural factors affecting the welfare, vocational opportunity, and personal development of the target group.

In summary, the Joint Study Committee recommends the following increases in social and economic development: Program activity in community and resource development should be tripled; natural resources programs should be doubled; and work with low-income farmers should be doubled by 1975. (Table 9, page 54)



Society - Its Mainstream and Its Fallout

The vast bulk of society might be likened to the mainstream of a large river. Here we find the main current of society. There are swirls and eddies, there are shallows and deep water, rapids and stagnant pools, but there is always the mainstream that typifies the nation, that gives it strength or weakness, sets the rate of forward movement or change. It is this group that includes that man called "the average."

Many forces determine the speed and direction of the mainstream current. Some of these forces are personal opportunities, training, incentives supplied to individuals, and social and economic influences applied to society.

In any society there are leaders, doers, innovators, risk takers. These are the people who challenge and forgo new horizons. They are the pace setters. There are also those who have never been in the mainstream. They may have been born outside it. In pockets of society alienated by race, poverty, or related factors. Their latent energy, like that of an isolated pool, has no force or motion because they are separate and confined. There also are those who drift away from society's mainstream due to poor health, inadequate education, lack of desire, restrictive environment, or other factors. They become the shallows and stagnant pools, the "fallout" from the mainstream of society. They lie dormant and inert. Just as pools that have been cut off from the main current as it shifts course from forces acting through the years.

A major objective of the nation today is to move the alienated into the mainstream where they may contribute and benefit on a basis of equality. A concurrent objective must be to minimize the negative impact of those who

cannot or will not enter the mainstream.

It is the strength, vitality, opportunity, and challenge of our nation which allows us to focus attention upon the problems of those who for whatever reason are not fully participating members of our society. We must also retain a concern for and commitment to those above the mainstream. They provide leadership and stimulation. Our national development has always sought to provide—and must in the future provide—incentive and opportunity for all, at whatever economic, social, or educational level.

In past decades in a slow moving mainstream, fallout groups had a reasonable chance of "catching up." But today the current is like a rapids. It takes skill, courage, dexterity, and alertness to navigate this mainstream as it plunges swiftly on into the future. Technology has accelerated the progress rate of society so that those who are not in the mainstream fall rapidly farther and farther behind. Many unskilled jobs that once could provide a living wage have disappeared completely.

The casualties are the workers who know no other skill. They flounder in despair and confusion. Moving to what seem to be more desirable labor markets they find their services obsolete there as well. Thus have come the discards from technology in agriculture. Farm trained and rurally oriented, they seek new opportunity in the city only to find their new environment inhospitable, far more costly and complicated, and just as unproductive. Like driftwood, they are cast upon strange beaches far from the forests where they grew.

Education can fashion society's driftwood into something meaningful and valued. From a humanitarian aspect we can tolerate no one cast

aside from society's mainstream. The national economy can tolerate a certain number of unutilized people, but each person who does not contribute limits the growth and productivity of our total society. The nation itself is dragged backwards by the inertia of dropouts in the midst of a dynamic and changing structure. Of even greater danger is the moral and emotional decay which becomes established like a growing cancer in the midst of affluence and progress. The mainstream can lose only so much of its current. Beyond that point the stream itself is diverted and lost.

A basic concern of our educational and research institutions has been acceleration of society's mainstream. Cooperative Extension has contributed significantly to this process and

must continue to do so.

A growing national awareness of drag imposed by the fallout or alienated groups is expressed in many new federally sponsored programs conducted by the Office of Economic Opportunity; Department of Commerce; Housing and Urban Development; Health, Education and Welfare; and others. Some new programs also recognize that areas, communities, and groups, as well as individuals, become isolated.

A national goal is to keep a maximum percentage of our people in the mainstream while guiding it in an appropriate direction. This will require more educational, research, and service resources than ever before in our history.

Individual Fallout

Figure 1, page 14, illustrates fallout of individuals. All of us are born into society with no base of knowledge, training, or experience. In the crucial preschool years, almost all learning is family oriented. Parents are the teachers and the major determinants of the emotional and cultural environment. If the parents are themselves outside society's mainstream, they may unwittingly hold the child at their own point of isolation.

The years from 6 through 18 are also critical. During this period the school dropout moves rapidly away from the mainstream. The earlier the schooling ends, the more severe is his isolation. His job opportunities are usually at the unskilled level. Continual frustration often results in a low level of aspiration, despair, and lack of motivation.

By contrast, the bulk of school-age students remain in the mainstream. They take advantage of their formative years to study and learn, and by so doing attain a competitive and generally equal position compared to their contemporaries. A few, who are unusually competent and who are presented with exceptional opportunities, move above the mainstream and are marked for leadership and high performance.

Fallout during adult years results from a disassociation from formal or informal continued learning or from management, economic, or health factors. In 1900, those who completed their education with high school were relatively well-trained and the numbers who went on to college represented the upper levels of the mainstream. Today, technology often exacts a higher

penalty from those who complete formal training with high school.

Disappearing jobs due to technological changes can cause adult fallout. This has happened to the farm laborer. Individual performance and personal dedication to the job, notwithstanding, millions of Americans have been displaced in agriculture. These members of American society can maintain themselves in the mainstream, or re-enter it, only if they reorient and retrain themselves for different occupations and modes of living. Thus through no fault of their own, many find themselves outside the mainstream of what they perceived in adolescence and in early career periods to be a friendly, secure, and productive environment. They may have no realistic alternatives and so they continue outside the mainstream.

The older group includes those at retirement age who find no useful outlet for their energies, who retired without adequate finances, and look to a future dark with medical bills, declining energy, and reduced personal impact upon a society which no longer seems to want them.

There are many concepts and proposals for bringing these fallout groups back into the mainstream.

The younger the individual, the greater his chance to take advantage of education or retraining, but the 16 year old dropouts are hopelessly left behind by age 50. They can easily become wards of the state. But the technological dropout at age 45 has tremendous personal problems to overcome. Less pliable, with formal schooling far behind him, usually with family responsibilities, he must turn to others for re-

direction, retraining, or other assistance.

Since Cooperative Extension must by its legislative mandate be concerned with people, this study examines the capability of Cooperative Extension Service to: (1) Maintain the maximum number possible in the mainstream and

through educational opportunities assist them to enhance its flow and direction, and (2) develop educational programs to help the alienated enter or re-enter the mainstream, minimizing loss to the individual and to society.

Farm Unit Fallout

A similar analogy may be made in commercial agriculture. Figure 2, page 15, illustrates the effect of a technological age upon farmers. Here we find the commercial farmer, with an inadequate resource base or inadequate training, dropping out of the mainstream. His opportunity for maintaining a competitive position lies in a continuing process of acquiring resources and combining management and tech-

nology so as to increase operational efficiency.

This condition has characterized American agriculture during the 1950's and 1960's. Unless the individual operator is given some capability to maintain a competitive position, he will rapidly be forced out of any satisfactory position. This is not only an individual problem. It is significant to the vitality and the nature of rural America.

Community Fallout

Figure 3, page 16, illustrates the fallout process as it relates to communities. The probabilities of different communities being able to stay in or return to the mainstream of social and economic development vary greatly. If the measure of a community's potential is its capacity to provide an adequate range of social, economic, and cultural services, it is obvious that many American communities are outside

the mainstream. Communities that have not provided satisfactory jobs, recreation, cultural opportunities and other social and economic needs for their residents have declined.

Many larger American communities face a different set of challenges and frustrations—how to maintain orderly growth, provide a livable environment, and finance a multitude of community services.

Technology and the Progress of Nations

A similar analogy can be applied to nations that fail to move into the mainstream of technological advancement. A widening gap between advanced and underdeveloped nations can lead only to increased national frustrations and conflict. Inadequate diets, frustrated social aspirations, and an unacceptable rate of eco-

nomic development will lead to increasing world tension.

The Cooperative Extension Service is faced with two major challenges. The first is to encourage sufficient application of knowledge to keep the mainstream moving forward. The second is to move dropout or alienated individuals and communities back into the mainstream.

The Alienated

There can be no question in today's society that one of our highest priority goals is centered upon the elimination of poverty, discrimination, and alienation. Cooperative Extension is dedicated to these efforts.

In discussing the role of Cooperative Extension Service in serving the poor and the

alienated, it is important to keep in mind the fact that Extension is an educational agency. It is not a welfare activity nor is it a financial aid institution. The major challenge to Extension—and to all other educational activity—in serving the poor and the alienated lies in the fact that education requires effort and response

by the recipient. You can lead a boy to school, but you can't make him learn. Extension can help the alienated enter the mainstream, but the individual must make efforts of his own. The learning process can be stimulated by easy access to the educational process, by various methods of encouragement, by financial stimulation, and by effective and highly motivated educators. In the realm of informal continuing education, the relevance of the knowledge to the recipient must also rank high on the list of challenges facing the educator.

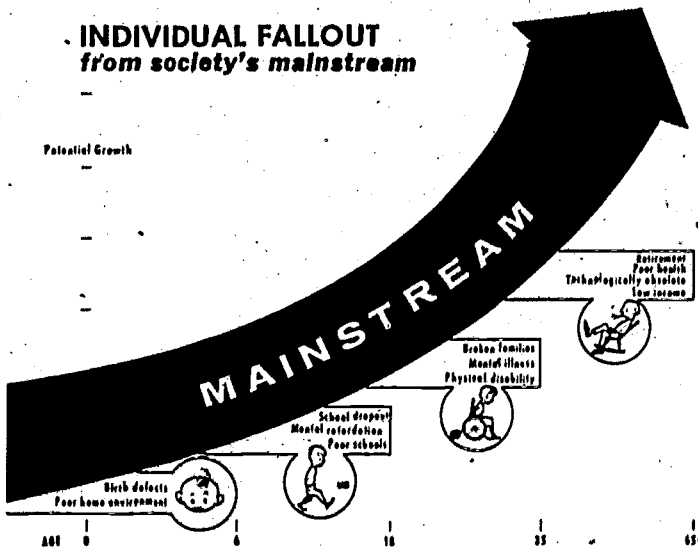
The principal efforts in recent U. S. history to help the poor have carried a heavy emphasis on some type of immediate financial reward for participation. Extension, as an out-of-school educational process, has relied upon voluntary response which requires an interest on the part of the participant to use knowledge for personal benefit, but often with a degree of delay in the payoff from the knowledge acquired.

We would ignore the facts if Extension education were described as a process which always carried an immediate payoff. Development of leadership, for example, is highly subjective

and taken place over a considerable period of time. In serving the poor and the alienated, Extension is faced with the problem of providing sufficient motivation to encourage participation by individuals and groups who in the past have not been highly motivated toward or who have been denied the educational process—formal or informal. Lack of motivation in many instances has been due to lack of knowledge about the opportunity to participate. In this context, Extension has both a challenge and an opportunity in providing more adequate information to the alienated about its programs and their benefits. This will require more intensive personal contact. That segment of the population which has the capability but not the interest will require effective stimulation before they participate in the educational process available to them through Extension—otherwise they will remain outside the mainstream.

Extension's image as a middle-class institution is derived largely from the fact that with a limited staff it has served those who were most accessible. The response by those who

Figure 1



participated gave them an advantage in our competitive society which either pulled them into or kept them in the ranks of the middle classes. This same phenomenon can be noted in our land-grant universities.

The Negro land-grant colleges have been oriented to serve many of those in our society who, for reasons of race, economics, or both, were outside the mainstream. There is evidence that even these institutions have served better the upper levels of the Negro society than they have the lower poverty groups. If one examines the limited financial facilities of these institutions and the nature of the educational process, it is easy to understand that those served are usually those sufficiently motivated to respond and are generally not in lowest incomes or lowest educational levels.

In examining the future contributions of Cooperative Extension Service for the poor and alienated, the problems of access, motivation, and individual response cannot be ignored.

In our pluralistic society, there are many agencies and institutions which have been cre-

ated to aid the poor. The marshalling of resources available from all these agencies can maximize the incidence of response from the poor and alienated. For example, educational efforts by Extension on consumer education can be far more effective with the poor if tied to practical opportunities for a housewife to save money through food stamp or similar programs. Nutrition education has been effective in connection with various food distribution programs for the poor. From these beginnings, it is then possible to build other interests. Once confidence is gained by the participant, it is easier to steer him to other agencies for different types of assistance. Programs of this nature hold greater promise for the alienated than more sophisticated and slower response educational activities. A major Extension role will include referral of the alienated to public resources so all of them can be fully effective.

Extension has both an opportunity and responsibility to do all it can to alleviate alienation wherever it occurs and for whatever reason. It should be dedicated to this objective.

Figure 2

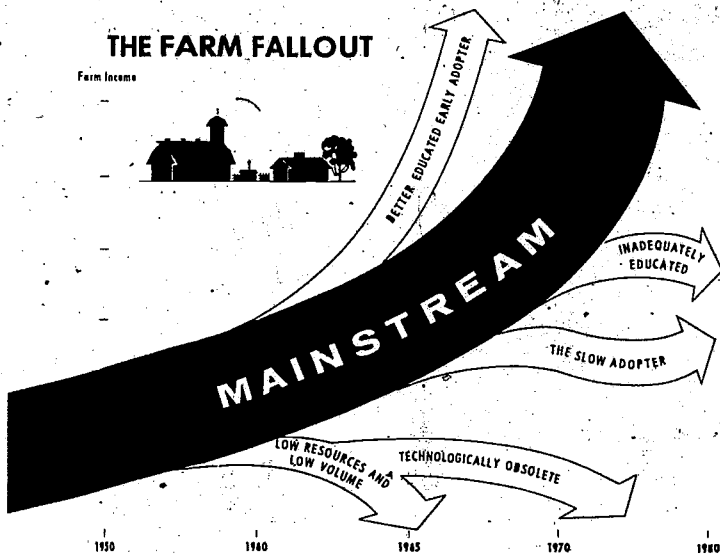


Figure 3

COMMUNITY FALLOUT
*In the capacity to provide
 a desirable environment*



MIGRANT SERVICES FOUNDATION, INC.

395 NORTHWEST FIRST STREET

MIAMI, FLORIDA 33128

TELEPHONE (305) 374-6193

June 15, 1972

Boren Chertkov, Esq.
Chief Counsel
Migratory Labor Subcommittee
Committee on Labor & Public Welfare
United States Senate
Washington, D. C.

Dear Boren:

At the request of the Subcommittee conveyed through you I have studied the availability of harvest labor in the Florida tomato industry.

Precise data was not available to me concerning the tomato industry. However, a reasonably accurate estimate could be made from data available in the Farm Labor Bulletins published weekly by the Florida State Employment Service.

The Bulletin contains a two or three sentence summary of labor supplies and crop conditions in representative agricultural areas of the State. For the purpose of my study I chose three areas that produce a high percentage of the winter tomato crop. The areas are Delray Beach-Pompano, Immokalee-Fort Myers and Princeton-Homestead. Although the Bulletin summaries do not break down the labor supply by crop but reflect the general state of the supply in the area, there is no reason to believe that the supply-demand situation with regard to the tomato industry is different than that which occurs for all of agriculture. In fact, it is considered that tomatoes are a preferred crop by the workers.

The time period covered in the study is December 1971, January, February and March 1972. The bulk of the tomato crop in South Florida is harvested in the four months studied.

Each issue of the Farm Labor Bulletin published during the four month period was examined. In most instances the state of the labor supply in the areas studied was specifically stated. Where nothing was said concerning the labor supply, it was assumed to be in balance.

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June 15, 1972

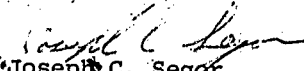
Mr. Chertkov

Page two

The enclosed chart tabulates my findings. By aggregating the totals for the three areas it is apparent that underemployment existed for half of the time period while supply and demand was in balance for the remainder of the time. A shortage of labor was found to exist in only one area and that was for but one week.

If the Florida State Employment Service is to be believed no shortage of labor existed in the tomato industry in Florida during this harvest season. It is generally assumed by most impartial observers that FSES statistics are slanted in favor of the growers and against the workers (see report of the Special Review Staff, U. S. Department of Labor on the Rural Manpower Service, April 17, 1972). If this slant in fact exists and colored the data used in my study, the situation of the workers is even more dismal than I have shown. Considering only the data available, it can be unequivocally stated that the labor supply-demand balance in the South Florida tomato industry is detrimental to the economic well-being of the workers and not the growers.

Sincerely yours


Joseph C. Segor
Executive Director

JCS:mm
Encl.

AVAILABILITY OF HARVEST LABOR IN SELECTED AREAS OF FLORIDA

DEC. 1971, JAN., FEB., MARCH 1972

Date of Bulletin	Delray Beach Pompano	Immokalee Fort Myers	Princeton Homestead	
12/1	0	0	0	
12/8	0	0	0	
12/15	0	0	+	
12/29	0	0	0	
1/5	0	0	0	
1/12	0	0	0	
1/19	0	0	0	
1/26	0	0	0	
2/2	0	0	0	
**				
2/16	0	0	0	
2/23	0	0	0	
3/1	0	0	0	
3/8	0	0	0	
3/15	0	0	0	
3/22	0	0	0	
3/29	0	0	0	

TOTALS:				TOTAL
Under- Employment	6	9	9	24
InBalance	10	7	6	23
Shortage of Labor			1	1

KEY:	Underemployment	0
	Unemployment	-
	In Balance	0
	Shortage of Labor-	+

Where the state of the labor supply was not specifically stated it was assumed that supply and demand was in balance.

SOURCE: Farm Labor Bulletin, Florida State Employment Service, Florida Dept. of Commerce.

** Bulletin for 2/9 missing from file.



FLORIDA LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

DEPARTMENT OF COMMERCE/TALLAHASSEE, FLORIDA 32304/TELEPHONE: 599-8266

Volume 16 Number 6

December 1, 1971

SOUTH FLORIDA SUMMARY -- Employment up as harvest activities increase. Vegetable harvest continues to rise. Rain shortage reported in the Immokalee-Fort Myers area causing poor to fair crop conditions.

VELLE GLADE -- Demand for sugarcane preharvest and harvest workers remains. Sugarcane harvest is increasing. Harvest continues in corn, celery, leaf, beans and other vegetable crops.

DELRAY BEACH-FORT PANO -- Most crews are working as harvest activity increases in peppers, cukes, eggplants and tomatoes. Crops are in good condition.

IMMOKALEE-FORT MYERS -- Most incoming workers becoming absorbed in work force, but saturation point is rapidly nearing. Housing is most critical. Crop conditions poor to fair as the result of rain shortage.

PRINCETON-HOMESTEAD -- Some underemployment still exists although decreasing. Tomato yields continue to increase. Mixed vegetables activity increasing. Avocado and lima harvests still light.

CENTRAL FLORIDA SUMMARY -- Vegetable harvest increasing due to better quality. Citrus harvest is still behind schedule caused by slow maturation of fruit. Some underemployment has resulted.

FORT PIERCE -- Vegetable harvest increase due to better quality. Citrus employment is below last year due to slow maturation of fruit.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Cooler weather beneficial to all crops. Demand for citrus workers remains as citrus proceeds on a minimal basis awaiting maturity of fruit. Cabbage and miscellaneous vegetable harvests gradually increasing.

WAPA -- Tomato harvest is declining in Ruskin. Other vegetables are right on schedule. Citrus is later than usual creating some underemployment.

PUNDEE -- Citrus harvest is still lagging behind this time last year. Reports indicate a rapid build-up in December, but peak labor needs are not expected to be reached until January. No unusual vegetable activity has been noted and labor is adequate for all harvest activity.

NORTH FLORIDA SUMMARY -- **ORANGE HEIGHTS** - Most workers in the area are either unemployed or underemployed. Vegetable harvest is limited to leaf vegetables. Cabbage and citrus harvest are two weeks off. **PERRY** - Supply and demand of labor in good balance. Crews are returning to Central Florida for citrus harvest. **TALLAHASSEE** - Winter vegetable harvest active. Bean harvest has almost completely stopped. Sufficient moisture for growing winter crops. **MARIANNA** - Small surplus of workers for day-haul activities. Most activities are active in gladioli bulb harvest. **PENSACOLA** - Longshoremen strike has slowed soybean harvest. Otherwise, demand and supply in balance.



FARM LABOR BULLETIN

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Volume 16 Number 7

December 8, 1971

SOUTH FLORIDA SUMMARY -- Harvest employment continues to increase. Housing situation remains in critically short supply in Immokalee-Fort Myers area. All sugarcane mills are now in operation.

BELLE GLADE -- Shortage of workers reported for increasing sugarcane harvest. All mills are in operation. Employment increased in harvests of corn, celery, leaf, beans and other crops over last period.

DELRAY BEACH-FORPANO -- Most crews are working as harvest activity increases in tomatoes and peppers. Harvest remains strong in cukes and eggplants.

IMMOKALEE-FORT MYERS -- Work force appears to be stabilizing but housing situation remains in critically short supply. Vegetables are maturing, but as of yet have not reached full maturity.

PRINCETON-HOMESTEAD -- Underemployment has decreased from last week. With tomato yields increasing, conditions should improve. Pole bean harvest is steady. Squash, cukes, bush beans and peas are active.

CENTRAL FLORIDA SUMMARY -- Demand for citrus pickers improving but some underemployment still being reported. Recent rains have helped accelerate fruit harvest near Tampa, but other areas report slow maturing fruit. Vegetable harvests remain constant with the exception of tomatoes.

FORT PIERCE -- Employment down with pro-rata on grapefruit. Vegetables almost at a standstill. Tomatoes near completion. Fruit harvest is about one month behind schedule.

ORLANDO (Includes Leesburg, Sanford and Cocos) -- Ample labor to meet present demands in all crops. No major problems in cabbage, carrots, radishes and miscellaneous vegetable harvests. Late-maturing citrus harvest proceeds on a minimal basis.

TAMPA -- Labor supply and demand are in balance. Recent rains have helped accelerate fruit harvest. Celery harvest is due to start in two weeks. Tomatoes in Ruskin are winding up and lemons are completed.

DUNDEE -- Underemployment is continuing, but is not as pronounced as was evident two weeks ago. Employment in citrus is 25% less than this time last year, but Christmas shipping and opening of concentrate plants is expected to increase demands during the next two weeks. Employment in vegetables is constant.

NORTH FLORIDA SUMMARY -- PENSACOLA - Surplus workers are available only locally. MARIANNA - Supply of labor is in balance with demand. TALLAHASSEE - Workers in balance with demand. Bean harvest complete with good quantity and quality reported. PERRY - Supply and demand of seasonal hired workers remain in good balance. ORANGE HEIGHTS - Texas-Mexican crew based in Lawley, Florida wants citrus harvest with housing. Crew will increase to 30 by June 1st. Cabbage and citrus harvests are increasing but many workers are still unemployed or underemployed.



FLORIDA LABOR BULLETIN

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Volume 16 Number 8

December 15, 1971

SOUTH FLORIDA SUMMARY -- Five to six crews are needed in the Princeton-Homestead area. Demand for sugarcane harvest workers still exists in the Bella Glade Area. Employment continues to rise as harvest activities increase.

BELLE GLADE -- Demand for sugarcane harvest workers exists. Crops in good condition. Harvest continues in all crops.

DELRAY BEACH-PORTLAND -- All available crews worked most of the week as harvest activity increases in tomatoes, peppers and corn. Harvest remains strong in mixed vegetables.

DEMOKALEE-FORT MYERS -- Labor appears to be in balance. Weather is staying too warm and crops are maturing too rapidly which may cause a labor surplus if market drops. Harvesting is still very critical.

PRINCETON-HOMESTEAD -- There is a shortage of workers now of five to six crews and it is expected that this situation will continue through the end of the year. Tomato harvest continues to increase due to weather conditions and more new fields coming in.

CENTRAL FLORIDA SUMMARY -- Some underemployment in the Ft. Pierce area as a result of the tomato harvest ending. Citrus harvest is accelerating steadily. Some processing plants have opened on a limited basis.

FORT PIERCE -- Some underemployment with tomato harvest ending in this area. Area to the south will pick-up some of the underemployed. Increase in all citrus harvest is anticipated this week.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Labor in balance to meet present demands. A shortage of housing suitable for families exists. Citrus harvest accelerates steadily as more fruit reaches required maturity. Vegetable harvest employment is constant.

TAMPA -- Labor supply and demand are in balance. Late-maturing citrus harvest moving slowly. Tomato harvest in Muskin is minimal and dwindling slowly.

DUNEDIN -- Underemployment should be eliminated soon. Citrus is in excellent condition. Fruit color is improving rapidly and harvest is increasing as processing plants open on a limited basis.

NORTH FLORIDA SUMMARY -- **PENSACOLA** - The few surplus workers are available locally only. **MARIANNA** - Labor is in balance with demand. Gladioli bulb, corn and soy bean harvests are active. **TALLAHASSEE** - Workers are in balance with demand. The recruitment has been adequate for all jobs. **PERRY** - Supply and demand of seasonal hired farm workers are in balance. Some workers are returning to Central Florida for citrus harvest. Bean harvest completed with good quantity and quality reported. A few workers are available for day-haul only. **ORANGE HEIGHTS** - Some workers still underemployed or unemployed. Cabbage and citrus harvests on the increase. Strawberry plants look better. Leaf vegetable harvest light.



FARM LABOR BULLETIN

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Volume 16 Number 9

December 29, 1971

SOUTH FLORIDA SUMMARY -- Holidays are causing a slowdown of harvest and market activities. Heavy rains and winds have damaged tomato and pole bean crops in the Princeton-Homestead area.

BELLE GLADE -- Harvest and market activities slowed by holiday season. Crops in good condition. Sugarcane harvest workers are needed.

DELRAY BEACH-FORPANO -- No shortage or surplus of workers. Harvest activity remains strong in tomatoes, pepper and mixed vegetables.

INMOKALEE-FORT MYERS -- Some underemployment is anticipated due to holidays and slackening of tomato harvest. Pepper and cuke harvests continue good.

PRINCETON-HOMESTEAD -- Heavy rains and winds have damaged tomato and pole bean crops. Extent of damage can not be estimated at this time. Due to rains and winds, harvesting slowed during the weekend. Market is fair due to holidays and weather conditions.

CENTRAL FLORIDA SUMMARY -- Shipping holiday has slowed citrus plant operations. Citrus harvest activities are increasing. Last year citrus employment was 25,146, compared to 21,678 this year for the December reporting period. Employment should increase in early January.

FORT PIERCE -- No shortages or surpluses of workers. Citrus harvest will accelerate. Some workers underemployed due to shipping holiday. Day-haul to Palm Beach County is up. Weather has been hot with heavy rains.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Individuals and family groups available for citrus harvest. A shortage of family-type housing exists. Most crews have job commitments. Citrus harvest operations on the uptrend. Citrus fruit in excellent condition. Miscellaneous vegetable harvest continues on a minimal basis with adequate labor to meet demands.

TAMPA -- Labor supply and demand are in balance. Citrus harvest is expected to accelerate this week and next. Strawberry and celery harvests will commence within a week.

DUNDEE -- Underemployed workers have been absorbed in citrus. Citrus trees are in excellent condition and fruit is passing maturity to be in larger volumes. Full processing is expected early in January. Vegetable activity is limited to winter crop.

NORTH FLORIDA SUMMARY -- **PENACOLA** - Preparation of present farm land and some new ground for spring crops will absorb some surplus workers after the first of the year. **MARIANNA** - Labor is in balance with demand. Crops are in good condition as activities continue in gladitol bulb and soybean harvest. **TALAHASSEE** - Labor is in balance with demand. Recruitment has been good for all jobs. **PERRA** - Labor supply and demand of seasonal hired workers remain in good balance. **ORANGE LIGHTS** - No shortages or surpluses reported. Cabbage, citrus and leaf vegetable harvests are active.



FARM LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

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Volume 16 Number 10

January 5, 1972

SOUTH FLORIDA SUMMARY -- Activities slowed by holidays with temporary surpluses resulting. Ripe tomato harvest is increasing. Wind damage to tomatoes reported in the Delray Beach-Pompano area. Otherwise, crop conditions are good.

SELE GLADE -- Crops in good condition. Harvest continues in celery, sugarcane, leaf crops, miscellaneous vegetables, and citrus. Minor harvest in beans and corn.

DELRAY BEACH-POMPANO -- Most activity slowed due to markets being closed during the holidays. Some wind damage to tomatoes. However, crop condition is good.

INMOKELE-FORT MYERS -- Temporary surpluses developed in vegetables due to Christmas and New Year holidays in northern metropolitan markets. Some workers have gone into citrus and a few may be working outside the area. Ground tomatoes slowly giving out, but stake tomatoes are in good shape.

PRINCETON-HOMESTEAD -- Heavy rains over the weekend hampered activities slightly. Tropical fruit harvest is at the seasonal lull. Strawberry harvest is increasing rapidly. Tomato harvest is near usual schedule. Older fields have been abandoned to red ripe harvest which is increasing rapidly.

CENTRAL FLORIDA SUMMARY -- Citrus harvest accelerating rapidly as more fruit reaches required maturity. Crop conditions are excellent. Some underemployment of vegetable workers reported in Ft. Pierce area.

FORT PIERCE -- Some underemployment of vegetable workers. Citrus harvest may take some of the underemployed workers. Citrus harvest fairly slow. Expected acceleration in next two weeks.

Orlando (Incl. Longwood, Sanford and Cocoa) -- Citrus harvest operations accelerating rapidly as more fruit reaches maturity. Processing plants increasing activities. Winter vegetable harvest operations on a constant seasonal trend. Labor remains fairly well in balance to meet demands. Some irrigation prevails as a result of dry weather conditions.

JACKSONVILLE -- Labor supply and demand in balance. A shortage of housing suitable for families exists. Citrus harvest accelerating slowly. Vegetable harvest continues on a minimal basis except for celery which is increasing.

MUNDEE -- Increased demands for labor are expected as increased volume of harvest is required. Employers are hiring all available workers in expectation of increased demand for fruit. Grove conditions are excellent but warm weather is causing new growth on trees. Vegetable growers are preparing for spring planting.

NORTH FLORIDA SUMMARY -- ORANGE HEIGHTS - Most of the available workers are being utilized full or part time. Leaf vegetable, cabbage and citrus harvests are active. PERRY - Crop and weather conditions are good. Supply and demand of labor in balance. TALLAHASSEE - Workers are in balance with demand. Winter vegetable harvest is active. MARIANNA - Activities hampered by inclement weather. PENSACOLA - Surplus labor will soon be absorbed as weather is favorable for preparation of land for spring and summer crops.



FARM LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

DEPARTMENT OF COMMERCE / TALLAHASSEE, FLORIDA 32304 / TELEPHONE: 599-8266

Volume 16 Number 11

January 12, 1972

SOUTH FLORIDA SUMMARY -- Employment in tomato harvest is increasing. Last year's employment in tomatoes was 8,345 compared to this year's 8,550. Labor supply and demand are generally in balance, except for sugar cane cutters in the Belle Glade area.

BELLE GLADE -- Supply and demand of labor generally in balance, except for shortage of sugar-cane harvest workers. Crops in good condition.

DELRAY BEACH-PORTLAND -- Harvest activity continues to increase in tomatoes. Harvest activity remains strong in corn, pepper and mixed vegetables. No shortages or surpluses of labor exist. Crops are in good condition.

INMOKEE-FORT MYERS -- A few free-wheelers have reported into the area but are being absorbed into work force while the preharvest for the spring crop has started. Spring peppers and tomatoes are coming up in good shape. Thinning has already started on some watermelon fields.

PRINCETON-HOMESTEAD -- Labor supply and demand in balance. Good market conditions are promoting crop activity and labor demand. Ripe tomato harvest continues to increase and as a result employment is increasing.

CENTRAL FLORIDA SUMMARY -- Citrus crop is in excellent condition but cooler weather is needed to aid fruit maturity. Individuals are needed in Tampa area for citrus harvest work.

FORT PIERCE -- Very little underemployment at this time due to increase in harvest of citrus and tomatoes.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Citrus crop in excellent condition with cooler weather aiding fruit maturity. Only hardy vegetables remain, being harvested at a minimal pace.

TAMPA -- Although there is a housing shortage, individuals are needed to fill vacancies on existing crews. Thirty to fifty individuals or small groups could be used in citrus harvest. Winter vegetable and celery harvests are increasing with only incidental underemployment in the area. Weather is hot with no rain.

DUNDEE -- No reported shortages have been received. Local referral has been adequate. Citrus trees are in excellent condition and have begun to show new growth.

NORTH FLORIDA SUMMARY -- **PENSACOLA** - Unfavorable weather conditions continue, preventing land preparation for spring and summer crops. Absorption of surplus labor should start soon.

MARIANNA - Very little surplus of workers as activities continue in gladioli bulb harvest and land preparation. **TALLAHASSEE** - Workers in balance with demand. Winter vegetable harvest is active. **PERRY** - Local labor supply and demand in balance. Referrals of individuals are continuing for Central Florida citrus harvest. **ORANGE HEIGHTS** - Two crews needed for citrus harvest in Weirsdale, crew fill-ins needed in Citrus area. No approved housing available.



FARM LABOR BULLETIN

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Volume 16 Number 12

January 19, 1972

SOUTH FLORIDA SUMMARY -- Labor supply and demand are generally in balance except for the continuing shortage of sugarcane workers in Belle Glade. Tomato harvest is active. Immokalee reports insect and disease problems in tomatoes from too much warm, dry weather.

BELLE GLADE -- Labor supply and demand in balance except for the demand for sugarcane harvest workers. Market is excellent. Prices compare very favorably with last year.

DELRAY BEACH-POHPIANG -- Labor supply in balance with demand. Very little housing available. Tomato harvest continues to increase. Harvest strong in citrus and mixed vegetables.

IMMOKALEE-FORT MYERS -- Labor force appears in balance as free-wheelers are being absorbed into work force. Spring crop of peppers and tomatoes are beginning to show slight insect and disease problems from too much warm, dry weather. Rainfall very inadequate.

PRINCETON-HOMESTEAD -- Labor supply and demand is in balance. Cooler and windy weather during the weekend affecting the quality of most crops. Strawberry and sweet corn harvest continues to increase. Tomato harvest is steady.

CENTRAL FLORIDA SUMMARY -- A shortage of individual workers for citrus crew fill-ins in some areas as citrus increases towards its seasonal peak. Limited housing is available. Processing plants are accelerating operations to keep pace with harvest.

FORT PIERCE -- A shortage of individuals in citrus and flower harvests is reported. Citrus needs some cool weather. Tomato planting continues for spring crop.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Citrus harvest operations reaching peak seasonal level. Processing plants accelerating activities. Some demand for local crews, family groups and individuals. A shortage of family-type housing exists. Recent rains very beneficial to all crops.

TAMPA -- Individuals are needed in the citrus harvest to fill vacancies on existing crews. Housing suitable for families is at a premium in this area. Flowers and winter vegetable harvests are progressing normally with little underemployment.

DUNDEE -- Shortage of about 100 local citrus harvest workers. Family-type housing is available for 50 workers. Citrus is in excellent condition. Recent cold weather should improve fruit maturity. No reports of any freezing temperatures in this area.

NORTH FLORIDA SUMMARY -- **SOUTH FLORIDA (PENSACOLA)** - Land clearing and pre-harvest activities slowly absorbing surplus workers. **MARIANNA** - Very few surplus workers as activities continue in glad, bulb planting and land preparation. **TALLAHASSEE** - Workers in balance with demand. Winter vegetable harvest is active. **PERRY** - Supply and demand of seasonal hired farm workers remain in balance. Peach tree pruning continues as weather gets colder. **ORANGE HEIGHTS** - Fifty workers are needed in Marion County for citrus harvest. Employment increasing as pre-harvest and harvest activities increase.



FARM LABOR BULLETIN

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Volume 16 Number 13

January 26, 1972

SOUTH FLORIDA SUMMARY -- Harvest activities continue. Labor supply generally in balance with demand except for continuing demand for sugarcane cutters in Belle Glade. Citrus harvest is increasing.

BELLE GLADE -- Demand for sugarcane harvest workers still exists. Only housing available is for single workers. Harvest continues in celery, sugarcane, corn and leaf vegetables.

DELRAY BEACH-POMPANO -- Increased activity in citrus. Harvest activity remains stable in tomatoes and mixed vegetables. A decrease in pepper activity as volume declines. Some acreage in peppers being abandoned early because of mosaic.

DIMOKALEY-FORT MYERS -- Free-wheelers are being absorbed into the labor force. Remaining - cukes, tomatoes, and peppers only slightly troubled with insect and disease due to excessive sun, dry weather. Temperatures remain above normal, slight increase in rain.

PRINCETON-HOMESTEAD -- Labor supply in balance with demand. Crops in fairly good condition. Cabbage is being damaged by disease. Hot weather has matured crops two to three weeks early. This will cause a slight lull in harvest activities during next two or three weeks until new fields come in.

CENTRAL FLORIDA SUMMARY -- No significant shortages in citrus harvest but a few local individuals could be used as crew fill-ins. Citrus harvest and processing plant operations reaching peak volume. Spring plantings of vegetables are underway.

FORT PIERCE -- Some shortage of local individuals only in citrus harvest. Crop conditions are good. A little underemployment in vegetables.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- No significant shortages of labor reported. Citrus harvest and processing plant operations reaching peak volume. Some demand for local crews and fill-ins. Harvest of winter vegetable crops constant with labor in balance. Ample moisture for crops.

TAMPA -- Additional workers in citrus harvest are needed for crew fill-ins. Citrus crop is in excellent condition after several days of cold weather. Flowers, celery harvest is at peak. Strawberry harvest is active. Spring tomatoes showing good progress. Weather remains very mild with excellent growth on all crops.

DUNDEE -- Local orders for fill-ins are mostly from independent contractors without available housing. Citrus condition is generally good with some isolated groves reporting dropage of pineapple oranges. Volume of harvest is gradually increasing. There is minimum activity in vegetables, but this is increasing as spring plantings are underway. Unusual warm weather prevails, but three cool days were beneficial to coloring citrus.



FARM LABOR BULLETIN

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Volume 16 Number 14

February 2, 1972

SOUTH FLORIDA SUMMARY -- Labor supply generally in balance with demand except for continuing demand for sugarcane cutters in the Belle Glade area. A slight lull in harvesting in the Princeton-Homestead area due to hot weather maturing crops 2-3 weeks early.

BELLE GLADE -- Local workers sufficient to meet labor demands except for continuing demand for sugarcane harvest workers. Crops in good condition. Harvest continues in calary, corn, leaf, sugarcane, and miscellaneous vegetables.

DELRAY BEACH-POPGANO -- No shortages or surpluses of labor. Young plants are in good condition, older plants in seasonal decline. Good weather conditions.

INDOLENE-FORT MYERS -- Labor supply and demand appear in balance. Most free-wheelers have been absorbed into the labor force. Warm, dry weather has caused only slight trouble with insects and disease.

PRINCETON-HOMESTEAD -- Hot weather matured crops 2-3 weeks early causing a slight lull in harvesting, especially in tomato harvest. Crops are in good condition. Squash showing some mosaic. Strawberry and tropical fruit harvest showed a decline during the week.

CENTRAL FLORIDA SUMMARY -- No significant shortages throughout the area, but local crews and crew fill-ins could be used in citrus harvest. Citrus harvest and plant operations are at seasonal peak.

FORT PIERCE -- Local crew fill-ins needed in citrus harvest. Heavy harvest in all fruit. Usual preharvest work in vegetables. Most vegetable crews working. Weather is warm with some rain.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Some local crews needed for citrus harvest. Also, demand is strong for crew fill-ins and family-groups. Housing suitable for families is scarce in this area. Citrus harvest and processing operations at seasonal peak. Recent rains and showers beneficial to all crops.

TAMPA -- This area could use five local citrus harvest crews and approximately 30 individuals for crew fill-ins. Citrus, flower, calary, and winter vegetable crops are all in good condition, and harvests are going smoothly. Some citrus trees are now in bloom due to unseasonably warm weather.

MUNDEE -- Singles and families needed in citrus harvest with some limited free housing available. Citrus groves are generally in good condition. Many groves are breaking dormancy and putting out new growth and blooms. Irrigation is light to date this condition until danger of freeze is past. Harvest is in full swing. Vegetable activity is increasing due to spring planting.



FARM LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

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Volume 16 Number 16

February 16, 1972

SOUTH FLORIDA SUMMARY -- Lull in vegetable harvest created by unusually warm weather maturing crops early. Some underemployment has resulted. Increased activity in citrus in Delray Beach-Pompano area.

BELLE GLADE -- Demand remains for sugarcane cutters. Housing available, suitable for single workers. Harvest continues in all crops. Local labor adequate to meet demands with the exception of sugarcane cutters.

DELRAY BEACH-POMPAÑO -- Harvest activity is slow in mixed vegetables and tomatoes as older plants are in seasonal decline resulting in some underemployment. Young plants in good condition. Increased activity in citrus harvest.

IMMOKALEE-FORT MYERS -- Some slight underemployment among vegetable workers due to the lull in activities. Crop conditions continue fair.

PRINCETON-HOMESTEAD -- Some underemployment in tomatoes and squash during lull that was caused by unusually warm weather maturing crops early. New fields expected in about two weeks. Hot weather and heavy scattered rains have reduced activity in tomatoes, squash and strawberries and increased disease problems in tomatoes. Pole beans, sweet corn and potatoes are also in harvest.

CENTRAL FLORIDA SUMMARY -- Local crews and individuals for crew fill-ins needed for citrus harvest. Citrus crop generally in excellent condition. Recent rains slowed some citrus harvest operations. Vegetable planting and cultivation on the upswing.

FORT PIERCE -- Labor supply and demand generally in balance. Cool nights have been beneficial for citrus and flowers.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Some need for local citrus crews and individuals for crew fill-ins. Shortage of family-type housing exists. Citrus crop generally in excellent condition. Recent rains and showers have caused hindrance in harvest operations.

TAMPA -- Individuals and local citrus crews needed in citrus harvest. Approved housing for individuals only. Recent rains beneficial to all crops. Citrus harvest and strawberry harvest slowed by rainy days. Flowers, celery, and winter vegetable crops are all in good condition and harvests are going smoothly.

DUNDEE -- Nearly all employers need fill-ins for existing citrus crews. Limited housing available. Two local crews with equipment are needed. Harvest is slightly behind schedule, but should be on schedule by the time valencias are ready to harvest. Vegetable planting and cultivation on the upswing. Watermelon planting near completion.



FARM LABOR BULLETIN

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Volume 16 Number 17

February 23, 1972

SOUTH FLORIDA SUMMARY -- Heavy winds and rains during the weekend caused some damage to tomatoes and beans in the Princeton-Homestead area. Seasonal lull in vegetables has caused some underemployment. Some surplus workers have gone into citrus.

BELLE GLADE -- Winds caused slight damage to some vegetables particularly leaf vegetables. Harvest continues in all major crops. Continued shortage of sugarcane cutters.

DELRAY BEACH-POMPANO -- Tomatoes and mixed vegetables are in seasonal decline and harvest has not started on spring plantings. Some crews are underemployed as a result. Harvest activity in citrus continues to increase.

IMMOKALEE-FORT MYERS -- Some underemployment still exists as vegetable season reaches a lull. However, many workers have gone into citrus. Flower preharvest and harvest continues.

PRINCETON-HOMESTEAD -- Heavy rains and winds of about 30-35 MPH during weekend caused some damage to tomatoes and beans. Cold weather helped retard maturity of tomatoes. Due to weather conditions, there is a slight lull in harvest activities. Some surplus workers are being referred to citrus and sugarcane harvests.

CENTRAL FLORIDA SUMMARY -- High winds and weekend frost have damaged tomato plants in Ruskin and Manatee County. Some droppage of citrus as the result of high winds near Dundee, but otherwise reported damage was light in Central Florida.

FORT PIERCE -- Citrus harvest continues at good pace. No shortages at this time. No damage as a result of cold weather and high winds.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Need for local crews and individuals and family groups for crew fill-ins continues. Harvest and plant processing activities at peak volume. Cooler weather should aid in the color break of Valencia oranges. Winter vegetable activities normal for this period with labor in balance.

TAMPA -- High winds and weekend frost have damaged tomato plants in Ruskin and Manatee County. Extent of damage cannot be estimated at this time. Citrus crop and harvest does not seem to be too affected by the adverse weather. Individuals needed for crew fill-ins. Otherwise, labor supply and demand are in balance.

DUNDEE -- Fill-ins for existing citrus crews and some family groups are needed for harvest. Limited housing available. Citrus generally in good condition. Some droppage is reported due to result of recent high winds. Some Valencias are meeting maturity requirements. Little or no lull between crops is expected. Vegetables received considerable damage from high winds and frost.



FARM LABOR BULLETIN

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Volume 16 Number 18

March 1, 1972

In Memoriam

Robert A. Rumbley, Administrator of Rural Manpower, passed away Sunday night, February 20, 1972, at the Seminole Memorial Hospital in Sanford, after an extended illness. He had been with the agency twenty-four years and Administrator of Rural Manpower since February 1, 1969. His loss will be deeply felt by all who knew him.

SOUTH FLORIDA SUMMARY -- Seasonal lull in vegetable harvest has caused many workers to go into citrus and other spring crops. Wind damage to tomatoes and leaf crops reported.

BELLE GLADE -- Supply of labor in balance, except for continuing demand for sugarcane cutters. Some shortages may be felt in three weeks when corn harvest begins. Small amount of wind damage to leaf crops.

DELRAY BEACH-POMPANO -- Vegetable harvest activity slow due to seasonal lull with underemployment of many crews resulting. Citrus harvest continues at rapid pace. Some wind damage to tomatoes reported.

MMOKALEE-FORT MEERS -- Most surplus workers have gone into citrus and other spring crops, although some underemployment remains. Flower crop continues at normal rate. Most crops in fair condition with some damage as a result of high winds.

PRINCETON-HOMESTEAD -- Underemployment continues in most crops due to the effects of weather, disease and market prices on the various crops. Harvest activities are light due to wind damage and disease. Tomato harvest light, quality fair. Potato and strawberry harvests are on the increase.

CENTRAL FLORIDA SUMMARY -- Processing plants operating at full capacity as early and mid-season citrus crops near completion. Normal seasonal lull between mid-season and Valencia harvest is expected. Ft. Pierce and Dundee need crew fill-ins and small local groups.

FORT PIERCE -- Small local groups could be used in citrus harvest. Some fruit dropage as a result of recent high winds. Underemployment in vegetables as a result of wind and sand damage to vegetables.

ORLANDO (including Leesburg, Sanford and Cocoa) -- Early and mid-season citrus crops near completion. Processing plants operating at full capacity. Winter vegetable harvest constant, with labor in balance.



FARM LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

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Volume 16 Number 19

March 8, 1972

SOUTH FLORIDA SUMMARY -- Reduced vegetable harvest continues causing some underemployment during this period. Employment remains high in flowers in the Delray Beach-Pompano area. Harvests in strawberries and potatoes increasing.

BELLE GLADE -- Harvest in sugarcane is decreasing, although demand for cutters still exists. Some shortages may be felt when spring corn harvest becomes significant. Harvest continues in all other crops.

DELRAY BEACH-POMPANO -- Some underemployment in tomatoes as activity decreases due to seasonal decline of plants. Employment in flowers remains high. Harvest activity in corn, beans and citrus remains strong.

IMMOKALEE-FORT MYERS -- Normal pre-spring harvest underemployment still exists, but should be alleviated when spring vegetable harvest picks up in about two weeks.

PRINCETON-HOMESTEAD -- Underemployment continues in most crops due to weather conditions and market prices. Some ground rot and disease has reduced tomato harvest activity. Labor demands in strawberries and potatoes are increasing as harvest activity increases.

CENTRAL FLORIDA SUMMARY -- Citrus harvest continues at rapid pace. Processing plants operating at peak volume. Demand for citrus crew fill-ins decreasing as lull between mid-season and Valencia's approaches. Tomatoes are still being replanted near Ruskin.

FORT PIERCE -- Some underemployment in vegetables. Vegetables are recovering from sand blast two weeks ago. Citrus harvest continues at good pace. No shortages at this time. Some fruit dropping reported.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Citrus harvest continues at rapid pace. Processing plants operating at peak volume. Some local crew fill-ins needed. Celery pre-harvest activities increasing. Corn planting underway.

TAMPA -- Citrus harvest continues at peak volume. Some crew fill-ins needed. Lack of approved housing continues to be a problem. Tomatoes are still being replanted. A few more individuals are needed for vegetable preharvest.

DUNDEE -- Demand for citrus crew fill-ins tapering off as mid-season fruit harvest nears completion. Groves in good condition. Spring fertilizing is about completed. Blooming is now showing generally in all varieties. Good weather prevails but more rain would be beneficial. Movement of fruit continues heavy.

NORTH FLORIDA SUMMARY -- **SOUTH FLOMATON** - Surplus of workers remains. Irish potato planting passed peak. Other spring crop planting under preparation. **MARIANNA** - Small surplus of workers available for day-haul activities only. Land preparation and spring gladioli planting continue. **QUINCY** - Workers in balance with demand. Winter vegetable harvest and land preparation continue. **GREENVILLE** - Surplus workers are available for employment within commuting distance of Jefferson County. Crops are in good conditions. **ORANGE HEIGHTS** - Current shortages of orange pickers in south Marion County decreasing as mid-season lull approaches.



FARM LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

DEPARTMENT OF COMMERCE / TALLAHASSEE, FLORIDA 32304 / TELEPHONE: 599-8266

Volume 16 Number 20

March 15, 1972

SOUTH FLORIDA SUMMARY -- Underemployment still exists, but is declining as vegetable harvest increases. Sugarcane harvest near completion, but some shortages are still occurring. Harvest activity remains high in citrus, corn and beans in Delray Beach-Pompano areas.

BELLE GLADE -- Sugarcane harvest near completion, but some shortages still occurring for cane cutters. Vegetable harvest increasing causing corresponding increased labor demand.

DELRAY BEACH-POMPANO -- Harvest activity increasing in mixed vegetables and will continue to increase as spring crops become mature. Some crews in tomatoes are underemployed. Harvest activity remains high in citrus, corn and beans.

IMMOKALEE-FORT MYERS -- Some underemployment continues. Workers are being absorbed into harvest as a few vegetable fields slowly mature into production.

PRINCETON-HOMESTEAD -- Underemployment continues in most crops due to unseasonably light harvest activities. Tomato harvest is on the decline. Avocado harvest is about finished. Potato harvest continues to increase with good quality and yield.

CENTRAL FLORIDA SUMMARY -- Citrus harvest still heavy, but past peak. Concentrate plants are going full blast. Normal seasonal lull expected between mid-season and Valencias.

FORT PIERCE -- Most workers in vegetables are back to near full employment. Vegetable preharvest continues. Harvest of citrus still heavy.

ORLANDO (includes Leesburg, Sanford and Cocos) -- Citrus harvest and processing operations continue heavy as mid-season fruit nears completion. Calary harvest and preharvest activities remain constant. Corn and miscellaneous vegetable planting underway.

TAMPA -- Crew fill-ins still needed for existing citrus crews. Limited approved housing. Concentrate plants going full blast. Citrus harvest declining as normal seasonal lull approaches. Grapefruit is beginning to move. Valencias moving slightly and expected to take up some of the slack caused by declines of mid-seasons.

DUNDEE -- Citrus is in good condition with mid-season fruit tapering off. Some young trees Valencias are being harvested. Vegetable activity is expected to increase within two or three weeks with cucumber harvest. More rain would help all agricultural activity.

NORTH FLORIDA SUMMARY -- SOUTH FLORIDA - Labor surplus still exists. Potato planting is finished. Other land preparation for spring crops near completion. MARIANNA - Labor supply in balance with demand as activities continue in land preparation. QUINCY - Labor supply and demand in balance. Land preparation and some spring planting are active. GREENVILLE - Surplus labor has been absorbed into labor force. Tobacco plants are almost ready for transplanting. Shade preparation is almost entirely complete. ORANGE HEIGHTS - No shortages of citrus pickers. Frost on March 17th caused some damage to earliest emerging spring crops.



FARM LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

DEPARTMENT OF COMMERCE / TALLAHASSEE, FLORIDA 32304 / TELEPHONE: 599-8266

Volume 16 Number 21

March 22, 1972

SOUTH FLORIDA SUMMARY -- Employment in Delray Beach-Pompano and Immokalee-Ft. Myers areas increasing as harvests increase in vegetables and flowers. Sugarcane harvest nearing completion in Belle Glade.

BELLE GLADE -- Harvest of sugarcane nearing completion with only two mills remaining in operation. Demand for cane cutters will cease within two weeks with the completion of the sugarcane harvest.

DELRAY BEACH-POMPANO -- Employment in harvests of mixed vegetables and hand picked beans increasing. Harvest activity in citrus and corn remains strong.

IMMOKALEE-FORT MYERS -- Slight underemployment continues. Increasing harvest of vegetables, citrus and flowers is absorbing more workers into labor force. Also, opening of packing houses is easing the underemployment.

PRINCETON-HOMESTEAD -- Underemployment continues in tomatoes due to the decline in harvesting. Some family groups leaving the area for Immokalee, Wachula and Ruskin. Potato and strawberry harvest continues to increase with good quality and yield.

CENTRAL FLORIDA SUMMARY -- Citrus harvest tapering off as seasonal lull approaches. Harvest of grapefruit and Valencia that meet maturity requirements should help alleviate labor surpluses during lull. Vegetable harvest picking up near Ft. Pierce. Some individuals needed for strawberry harvest in Tampa area.

FORT PIERCE -- Supply and demand of labor in fair balance. Citrus harvest continues at good pace. Vegetable harvest picking up. Day-haul continues to Palm Beach County.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Citrus harvest proceeds at a moderate pace as harvest operations approach seasonal lull. Harvest of grapefruit and Valencia crop that meets requirements should help alleviate labor surpluses during the lull period. Harvest and planting of miscellaneous vegetable activities remain constant.

TAMPA -- Some individuals needed for strawberry harvest. Lack of approved housing continues to be a problem. Individuals could still be used as crew fill-ins in citrus harvest. Citrus harvest beginning to thin off.

DUNDEE -- Fruit movement is tapering off. Possible shortages may develop when Valencia meet maturity requirements in volume in approximately three to four weeks. Citrus generally in good condition. More irrigation is evident due to light rainfall. Spraying and fertilizing is also more in evidence.

NORTH FLORIDA SUMMARY -- ORANGE HEIGHTS - Harvests of leaf vegetables, cabbage, plants and strawberries are active, but volume is light. Most labor employed full time.

GREENVILLE -- Supply and demand of seasonally hired farm workers remain in balance.

QUINCY -- No shortage or surplus of workers. Tobacco setting starting. **MARIANNA** - Small surplus of workers for area for day-haul activities only. Land preparation continues. **SOUTH FLORIDA** - Surplus continues. Good weather conditions favorable for preparation and planting of spring crops.



FARM LABOR BULLETIN

FLORIDA TIME EMPLOYMENT SERVICE

DEPARTMENT OF COMMERCE / 141 LAHASSEE, FLORIDA 32304 / TELEPHONE 599-8266

Volume 16 Number 22

March 29, 1972

SOUTH FLORIDA SUMMARY -- Harvest increasing in vegetables and flowers. Some underemployment, however, is reported in Immokalee-Fort Myers area. Sugarcane harvest is completed in Belle Glade. Citrus harvest remains active.

BELLE GLADE -- Sugarcane harvest completed. Labor supply and demand are in good balance. Significant spring harvest is expected in about one week. Local labor dayhauling to other areas is expected to be utilized in the activity.

DELRAY BEACH-POMPANO -- Harvest activity remains strong in citrus. Harvest is increasing in cucumbers, squash, eggplant and other mixed vegetables. Activity remains high in flowers and nurseries.

IMMOKALEE-FORT MYERS -- Harvest of vegetables, citrus and flowers remains active. A slight amount of underemployment exists in spite of opening of packing Houses. Crops remain in good condition.

PRINCETON-HOMESTEAD -- Labor demand and supply in fair balance. Tomato crews and family groups continue to leave the area to find work in other parts of the state. Most crops are in good condition. Corn and potato harvests are very active.

CENTRAL FLORIDA SUMMARY -- Citrus harvest continues gradual decline as seasonal lull approaches. All areas report generally good balance of labor supply and demand. Vegetable harvest is increasing. Some individuals and small family groups are needed for strawberry harvest in Tampa.

FORT PIERCE -- Good balance of labor supply with demand. Citrus harvest is declining somewhat. Work in tomatoes is increasing.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Citrus harvest activities slowing. Planting of spring vegetable crops continues. Activity in cabbage, carrots, radishes, celery and miscellaneous leafy crops remains constant. Labor supply is in good balance with demand.

TAMPA -- Celery harvest continuing at peak volume. Spot picking of tomatoes is expected to begin in about ten days. Citrus continues its slow decline. Some individuals and small family groups are needed for strawberry harvest.

DUNEDIN -- Demand for citrus pickers expected to increase as Valencia's reach proper maturity ratios. Workers are expected to be leaving the area, and some shortages could occur as more Valencia's reach maturity.

NORTH FLORIDA SUMMARY -- **SEBASTIAN** -- Some crews unemployed and underemployed due to citrus lull. Harvest in cabbage, strawberries, plants and a few leafy vegetables. Preharvest activity in corn, spring vegetables and celery. Some unemployed workers are available for broiler, plums or vegetables. **QUINCY** -- Supply and demand of seasonally hired workers remain in balance. **MARIANNA** -- Small surplus of workers in the area for day-haul. Land preparation continues, and spring planting is getting underway. **SOUTH FLORIDA** -- Surplus workers should be available as activities increase.

U.S. DEPARTMENT OF LABOR
MANPOWER ADMINISTRATION
WASHINGTON, D.C. 20210



June 23, 1972

Mr. Boren Chertkov
Office of Senator Adlai E. Stevenson, III
Subcommittee on Migratory Labor
Room 201 Senate Annex
127 C Street, N. E.
Washington, D. C. 20510

Dear Mr. Chertkov: *Boren* —

Enclosed is the material relative to the availability of
tomato workers in Florida. I regret the delay in sending
this to you.

Sincerely,

Daniel W. Sturt
DANIEL W. STURT
Director
Rural Manpower Service

Enclosures

U. S. DEPARTMENT OF LABOR

MANPOWER ADMINISTRATION
1371 Peachtree Street, N. E.
Atlanta, Georgia 30309

DATE: June 15, 1972
REPLY TO: 44GEP
ATTN OF:
SUBJECT: Labor in Tomato Growing Areas



TO: Dr. Daniel Sturt, MER

After talking with you I asked Walter Cole, Assistant R.E. Administrator in Florida, to make a quick check in the tomato growing areas. Without hesitation he stated that there had been a surplus of labor in the Delfray, Bude County and Immokalee areas. He then checked with the Tampa, Orlando and Orange Heights local offices as well as with the State Farmer Market Manager and County Agent in Bonifay, Florida. In the Ruskin area, which is on the west coast as well as the Oxford Summerfield area in Marion County north of Ruskin, labor was reasonably tight but adequate even at the peak of harvest. Only between 400 and 500 acres of tomatoes are grown in the Oxford Summerfield area. At Bonifay, Florida, where approximately 75 to 100 acres of tomatoes are grown, Mr. Lamar Williams, State Farmer Market Manager, stated he had heard of people who could not get their crop picked but the situation was alleviated when school was out. The County Agent in Bonifay said he had not heard of anyone not being able to get their tomatoes picked. There is no approved housing in this area, which is 30 miles from the nearest ES office at Marianna. Some workers day haul themselves from Glacorb, Alabama, into the area.

Other than the above, Walter or the local office managers know of no loss in the tomato crops in Florida this year. Walter did state that one grower in the Ruskin area placed an order with the local office and when workers were not referred that day, he complained to the Governor. Within a day or two a crew and some individual workers were referred to the grower but some of his tomatoes had to go to a processor at a lower price rather than to the fresh market because they were too ripe.

Attached are copies of the bulletins I mentioned.

Bill
V. A. TERRY
Rural Manpower Service





Eastern Seaboard FARM LABOR INFORMATION

Volume 24, No. 4 - Room 405 - 1371 Peachtree Street, N. E.
Atlanta, Georgia 30309
June 13, 1972

REGION II - NEW YORK

Seasonal hired agricultural employment as of June 7 estimated at 6,330 workers. This compares with 6,785 in 1971. This year's employment consists of 4,150 local, 155 intrastate and 2,025 interstate workers inclusive of 146 contract Puerto Rican workers. Rains in some areas delayed activities. Local workers and early arrival offshore and other interstate workers are meeting all current labor demands. Landscape and nursery work, planting, cultivating, spraying and orchard work are major activities. Long Island strawberry harvest expected to start in volume June 12, and upstate strawberry harvests to begin during next two weeks. Some surplus local and day-haul workers to be utilized strawberry harvests; youth continue to seek seasonal employment.

NEW JERSEY

10,420 seasonal farm workers, 1,180 more than a week ago, were employed in the Garden State this week. The slow-moving asparagus harvest was providing jobs for 3,100 seasonal workers. Strawberry harvesting activity increased considerably; 1,600 workers were picking strawberries yesterday. A week ago the strawberry work force numbered 250.

REGION III - PENNSYLVANIA

Wet weather continues to hamper spring planting and seeding activities. Tomato transplanting is still incomplete and suffered some washouts during last Wednesday's rain. Grovers have complained that they have been unable to plant sweet corn due to wet fields. Please advise crews not to come to Pennsylvania without definite commitments.

DELAWARE

Good weather helped grovers make progress in field work. Approximately 80% of field corn and 20% of soybean acreages have been planted. Barley



FARM LABOR SERVICE
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82-656 1243

harvesting will start about June 10.

Vegetable crops are irregular in growth due to the many interruptions of planting schedules caused by the weather.

Asparagus harvest is about 3/4 completed with 700 Puerto Ricans, 375 Texas-Mexicans still cutting by hand, and 23 mechanical harvesters in use.

The pea harvest started June 5 with reports that yield and quality are good. Scattered cutting of early cabbage started this week.

MARYLAND

All available workers are employed in ground preparation and planting, however, hay making is still interrupted by humid weather.

VIRGINIA

The asparagus harvest nearing completion and will probably terminate next week as size and quality are rapidly declining. Cabbage harvest moving slow as a result of low prices and lack of demand. Setting sweet potato plants continues in volume. Harvest of snapbeans will begin on limited basis next week. Labor supply and demand in balance.

WEST VIRGINIA

Strawberry harvest progressing normally with local labor meeting all demands. Anyone knowing the whereabouts of Simon Washington, Jr., is asked to call the Martinsburg local office, by collect call if necessary, 304-263-3336.

REGION IV - NORTH CAROLINA

All crops are in good condition. Major harvest activities consist of cabbage, squash, blueberries, and beans. The demands for labor are especially strong where crop harvests are overlapping. Irish potato harvest is underway on a light scale. Pickled cucumber harvest will begin next week. Local labor is being supplemented by about 1500 interstate migrant workers. No labor is available for out-of-State referral.

SOUTH CAROLINA

Favorable weather was conducive to accelerated field activities with virtually all intrastate seasonal labor being utilized along with 70 interstate crews which advanced total seasonal labor force to an estimated 13,000 workers. Harvesting of tomatoes and cucumbers is moving into full production while squash, cabbage and snapbean harvests are declining. Peach picking is accelerated with a better crop than previously reported. Free-wheeling crews are arriving daily; therefore, all crews should have firm commitment before coming into State.

GEORGIA

Seasonal farm worker levels increased as peach harvest speeded up in the mid-state area. All labor needs are being met with local supply on a day-haul basis. Youth workers available due to school closing for the summer are supplementing the regular seasonal worker supply. Crops in early growth stages and reported in good to fair conditions are: cotton, peanuts, and corn. The wheat and oats harvest is approximately 40% complete.

Hay harvest was very active and good yields were being obtained. Pasture and cattle were in good condition. Soybean plantings were 62 percent completed and sorghum seedings 45 percent completed. Soil moisture was adequate in the north, short to adequate in the south with some surpluses reported near the coast. Migrant housing is not available in the state.

FLORIDA

With approximately four weeks of intensive late orange harvest remaining, the citrus harvest labor force is dwindling fast due to crews leaving for eastern seaboard commitments. Additional crews and fill-ins for citrus are needed.

Agricultural activities in South Florida have decreased to normal summer levels. It is expected that a large number of agricultural workers will remain in this area all summer. Except for light harvest and preharvest work, most will remain unemployed until fall.

In addition to crews represented by ES 369's sent to demand States for job development, other crews are also available.

OTHER - INDIANA

Strawberry harvest in southern part of state for all purposes is completed. Those mid-State will peak this coming weekend. Tomato transplanting is completed and direct-seeded tomatoes are up with workers now hoeing and blocking on direct-seeded acreage.

We anticipate a few low employment periods in some areas during this month, however, crop and weather conditions may alter this prediction at any time.

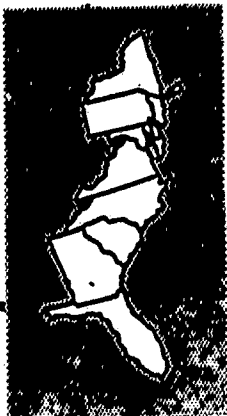
Most interstate workers having commitments in Michigan have left our area. We do not anticipate any particular surplus of workers during the coming week, nor do we anticipate a shortage. Workers should contact their State Employment Service Office before coming to Indiana. At the present time we have no employment to offer.

MICHIGAN

Drought affecting the entire lower peninsula. All areas report no licensed housing available for activities in progress and all jobs filled. Temporary surplus of workers in the manistee area awaiting the beginning of strawberry harvest.

OHIO

No report.



Eastern Seaboard FARM LABOR INFORMATION

Volume 24, No. 3 - Room 403 - 1371 Peachtree Street, N. E.
Atlanta, Georgia 30309
June 6, 1972

REGION II - NEW YORK

Seasonal hired agricultural employment as of May 31 estimated at 5,675 workers. This compares with 6,060 in 1971. This year's employment consists of 3,900 local, 125 intrastate and 1,650 interstate workers inclusive of 134 contract Puerto Rican workers. Agricultural activities and crop growth continue to progress. Planting, cultivating, spraying, orchard cleanup work and landscape and nursery activities continue to use local workers and early arrival interstate workers, with labor demand generally light. Increasing numbers of local youth are available and seeking employment. Individuals and small groups of interstate workers arriving in scattered fashion.

NEW JERSEY

9,240 seasonal farm workers were employed in New Jersey this week. The asparagus crop, with a harvesting work force of 3,200 continued to be the biggest labor-user. The strawberry harvest began earlier in the week. 250 people were picking strawberries yesterday. 1,100 seasonal workers were harvesting nursery stock.

REGION III - PENNSYLVANIA

Dryer weather has permitted resumption of spring work delayed by earlier rains. Vegetable planting, field preparation and orchard spraying are in progress. Crews without definite commitments should be advised not to come to Pennsylvania.



Growers pushed field work as soils dried out but planting activities still lag about two weeks behind normal. Corn planting and soy bean planting continue as field conditions permit. Earlier planted corn fields are germinating slowly, but good stands are reported.

Warmer weather has been beneficial to the asparagus crop with approximately 700 Puerto Rican contract workers and 325 Texas-Mexican workers cutting by hand, and 23 mechanical harvesters are in use. Scattered strawberry picking has started with most patches opened to the public on a "pick-your-own" basis. Early pea harvest will start about June 4.

MARYLAND

Cool weather continues to delay the planting and growth of some early crops. However, this situation is not expected to have a serious effect on labor.

Mr. Wilbur Pearce, Farm-Rural Manpower Representative assigned to our Towson (Baltimore County) Office is retiring on June 30, 1972.

VIRGINIA

The strawberry harvest is over for all reporting purposes. Asparagus harvest continues with increased yield anticipated with higher temperatures. Cabbage harvest approximately 20% complete. Spring pea harvest expected to be complete in next ten days. Soil conditions favorable for proper growth of all crops. Labor supply adequate.

WEST VIRGINIA

No report.

REGION IV - NORTH CAROLINA

Cabbage harvest is in peak in the eastern part of the State. Undesirable quality is causing a weak market. Other major harvest activities consist of benne, blueberries and squash. Weather conditions improved during the week and were beneficial to all crops. Local labor is being supplemented by intrastate crews and interstate migrants. Some areas still report surplus workers but they will be absorbed in the next two weeks as all harvest activities increase. No surplus labor is available for out-of-State referral.

SOUTH CAROLINA

Excessive rain hampered vegetable harvesting in the Coastal area. Continued wet weather has adversely affected the strawberry yield and harvest which is virtually completed. Boggy fields restricted mechanical weed control, thus necessitating hand labor for hoeing. Cucumber and peach harvesting is expected to gain momentum this week. Harvesting of the increased acreage of tomatoes is expected to start in the Beaufort area this week. The supply of seasonal workers is more than adequate to satisfy the demand as at least 23 "freewheeling" crews are in the State. Crew leaders should be advised to have firm commitments before coming into the State. An estimated 6,800 seasonal workers are employed in the State.

GEORGIA

Pulling, packing and shipping of tomato and pepper plants have peaked and started to decline in volume. Peach harvest has accelerated and a bumper crop is expected. Snapbeans, cabbage, collards and squash moved in heavy volume from southern areas; and, tomatoes are being harvested on a small scale. Progress of grain and peanut crops are reported fair to good. Soy bean plantings are 50% complete and sorghums about 30%. School closings for the summer months have eased the labor shortage in rural areas. No surplus workers or crews have been reported. All workers in the State are local domestics.

FLORIDA

South Florida - All agricultural activities have been completed for this season. Most of the crews and individuals seeking work in other States have left the area. As of this date, we have had no response to our numerous ES 369's indicating a need for job development for several crews.

Central Florida - Citrus harvest continues very active. No crews available from this area.

North Florida - Currently in peak of mixed vegetable harvest. Potato harvest complete. Potato crews available for Virginia, Maryland, Delaware, and New York.

OTHER - INDIANA

Rains which were received over most of the State early in the week should help stimulate all plant growth. Workers in increasing numbers are becoming involved in blocking and weeding of tomatoes and pickles. Strawberry harvest fast nearing completion in south and now approaching the peak in the central sections. Most muck crops are planted and fresh vegetable production is on the increase to the north. A few interstate workers are now ready to move to Michigan for their next job commitment.

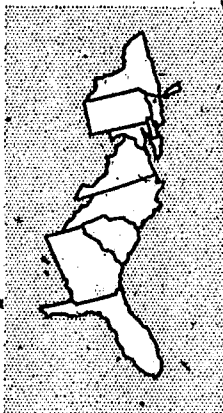
OHIO

Tomato acreage about 95% planted. There will be an approximate 10% reduction in acreage from last year and an increase in the use of individual harvesters. Pickle acreage will be about the same as 1971 at 6200 acres.

Some labor is being used in sugar beets at the present time. Strawberry harvest will start this week.

A surplus of migrant labor is anticipated in Ohio in 1972. Uncommitted workers are encouraged to contact their employment service or the Farm Labor Information Center in Columbus (614-469-3128) prior to coming to Ohio.

The Ohio Migrant Reception Center near Liberty Center is open seven days a week. Interstate workers are encouraged to stop overnight and utilize the facilities available, (sleeping, laundry, cooking, recreation) and to obtain the latest job information. The phone number is 419-375-6801.



Eastern Seaboard FARM LABOR INFORMATION

Volume 24, No. 2 - Room 405 - 1371 Peachtree Street, N. E.
Atlanta, Georgia 30309
May 30, 1972

REGION-II - NEW YORK

Seasonal hired agricultural employment as of May 24 estimated at 5,200 workers. This compares with 5,515 in 1971. This year's employment consists of 3,675 local, 110 intrastate and 1,415 interstate workers inclusive of 112 contract Puerto Rican workers. Warm, dry weather this past week has accelerated all agricultural activities. Planting, cultivating, spraying of crops and landscape and nursery work have all shown increased activity and labor demand. Local workers have been primary source of labor with some few arrivals of interstate workers as individuals and in small groups. Local youth are showing interest in seasonal work.

NEW JERSEY

8,950 seasonal farm workers were employed in the Garden State this week. The New Jersey State Training and Employment Service's Rural Manpower office in Haskell (Passaic County) will now be open 5 days each week in order to better serve the manpower needs of upper Passaic County residents. The Haskell office is located at Union and Ringwood Avenues and will be open from 9:00 AM to 3:00 PM Monday through Friday. The office telephone number is 835-6225.

REGION III - PENNSYLVANIA

Frequent and excessive rainfall has delayed all spring work. As of this date only one-half of the tomato acreage has been transplanted or directly seeded. An excellent cherry and apple crop is forecasted again this year. Please advise craws not to come to Pennsylvania without firm commitments.



FARM LABOR SERVICE
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DELAWARE

Frequent rains continue to keep soils wet, resulting in planting activities being 2 to 3 weeks behind the usual pace. Field corn is approximately 10% planted and soy bean fields are less than 5% seeded. Sweet corn and snap beans are about 50% planted. Potato growers have just finished planting - about 3 weeks behind schedule.

Asparagus cutting has picked up - but growth still is being retarded because of cool weather. Approximately 300 Texas-Mexicans and 750 Puerto Ricans are cutting by hand, and 22 local workers are operating machine harvesters.

Planting, shipping and other nursery activities are using 36 Texas workers, 45 contract Puerto Rican workers and 265 local workers. Another 265 Texas and Florida workers and 1,500 local workers are employed in processing plants.

MARYLAND

Rains finally slowed down, and the sun coupled with moderate winds have begun to dry out soil conditions, which has prompted the farmers to prepare his ground with all available equipment.

Western Maryland (Washington and Allegany Counties) reports some fruit damage due to light frost and a poor set caused by lack of pollination. Nectarines - Light damage; Peaches - 65 to 70% damage; Apples - 65 to 70% damage. No cut back in workers at present. A more accurate assessment can be made by mid-June, at which time more information will follow.

VIRGINIA

Harvest activities include strawberries, asparagus, greens, and light cutting of cabbage. Excessive rainfall has caused considerable deterioration of the strawberry crop. Labor in balance.

WEST VIRGINIA

Cool wet weather has delayed strawberry harvest about two weeks. Strawberry harvest expected to begin this week. Local labor and day hauls expected to meet all labor needs at this time.

REGION IV - NORTH CAROLINA

Intermittent rains over the state hampered all agricultural activities during the week. Cabbage growers continue to experience difficulty in harvesting the crop. Some cabbage is beginning to burst in the field. Market is weak.

Unemployment and underemployment of seasonal farm workers remains heavy due to wet soil conditions. Irish potato and sweet potato crops are looking good.

Recruitment of local youth for seed corn detasselling continues with good response being reported. No labor is available for out-of-state referrals.

SOUTH CAROLINA

Free wheeling out-of-state crews have started to move into the coastal area of the state giving relief to a short supply of local and day haul workers in the vegetable harvest. Continuous showers and cool temperatures have slowed field work, and have not been conducive to good plant growth. Peach and cucumber harvest has started on a limited basis in the lower Savannah Valley. Tobacco, cotton, and early soybeans are beginning to show damage from excessive moisture. There is an estimated 6,000 seasonal workers employed in the state at this time and more arriving daily. All out-of-state crews should be notified to have a firm commitment before moving into South Carolina.

GEORGIA

Peach harvest for early varieties is underway. Wheat harvesting on schedule. This year's yield will be fair to poor due to rust disease. Tomato and pepper plants being shipped in heavy volume. Plant pulling has reached its peak and will continue for about four weeks. Approximately 16,280 workers engaged in pulling, packing and shipping plants.

Leaf vegetables, onions, snapbeans, cabbage, okra, cucumbers, squash and peppers are being harvested and marketed from the southeastern and southwestern areas of the state.

Approximately 32,900 seasonal workers are engaged in agricultural work within the state. All workers are local or day haul intrastate workers other than one Alabama crew of 35 interstate workers. Shortages of workers being experienced in some areas for short periods. No housing for migrant workers is available.

FLORIDA

South Florida - Most agricultural activities have been completed with the exception of citrus and corn harvest. Crews and individuals continue to leave the area for other states. Family groups and crews available for job commitments in Florida and other states.

Central Florida - Valencia harvest continues at high level. Crews and individuals needed as fill-ins. Approved agricultural housing scarce. Celery, corn, watermelon, and tomato harvest active. Submitted ES-369's for job development to other states. Has brought very little response.

North Florida - Increased vegetable activity noted in most areas. Harvest of vegetables, melons, tobacco showing active with some local shortages reported. Potato crews available now. Vegetable crews will be available after 6/15/72.

OTHER - INDIANA

The fields have dried and all outdoor activities have been resumed with vigor. Harvesting of strawberries has started in the southern areas with moderate yields reported thus far.

Tomato setting has progressed beyond the halfway mark and will soon be nearing completion. Some blocking of direct-seeded acreage may begin shortly.

Asparagus harvest, fresh vegetable production and muck crop planting provide employment for the balance of the current labor force.

MICHIGAN

No report.

OHIO

No report.

NOTE: Please change Volume No. on last Eastern Seaboard Bulletin from 25 to 24.



FARM LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

DEPARTMENT OF COMMERCE / TALLAHASSEE, FLORIDA 32304 / TELEPHONE: 599-8266

Volume 16 Number 30

May 24, 1972

SOUTH FLORIDA SUMMARY -- Farm workers continue to migrate out of the area as seasonal decline of crops continues. A shortage of farm equipment operators in sugarcane preharvest exists in the Belle Glade area.

BELLE GLADE -- A shortage of farm equipment operators exists in the preharvest of sugarcane. This shortage may become more pronounced during the coming fall season. Corn condition is good. However, excess water may result in increased propagation of worms and subsequent damage.

DELRAY BEACH-POMPAHO -- Seasonal decline of crops continues. Many crews have left for out-of-state jobs. Others are being referred to jobs in other parts of the state. Harvest activity remains stable in citrus.

MIAMI-KALEE-FORT MYERS -- Farm labor continues to migrate north to other parts of Florida and to other states. Those remaining are harvesting vegetables and citrus. A few melons are still being harvested. Daily showers continue over area.

PRINCETON-HOMESTEAD -- Very few migrant workers left. Lime and miscellaneous vegetables utilizing remaining workers. Hot and rainy weather causing some delay in harvest activities.

CENTRAL FLORIDA SUMMARY -- Valencia harvest continues in heavy volume. Citrus harvest workers are needed in the Orlando, Tampa and Dundee areas. Tomato harvest approaching peak in the Ruskin area. Recent rains have been beneficial but more rain is needed.

FORT PIERCE -- Valencia harvest continues. Grapefruit nearing end. Tomatoes in canning stage. Heavy rains entire area this past week. Heavy hail in Stuart caused flower damage.

ORLANDO (includes Leesburg, Sanford and Cocoa) -- Valencia harvest and processing plant operations continue at accelerated pace to meet seasonal demands. Citrus crew fill-ins needed. Celery harvest at peak volume. Shortage of celery crews exists. Moderate showers were helpful, but more rain is needed.

TAMPA -- Several crews needed to harvest Valencias. Also individuals are needed for crew fill-ins. Valencia oranges are in excellent condition and movement is at peak. Week of May 22 should see peak of tomato harvest in Ruskin area. No additional labor is needed for tomatoes.

DUNDEE -- Crew fill-ins are needed for citrus harvest as workers continue to leave area or take other jobs. Condition of citrus remains good and harvest is at the limits of available labor. Watermelon harvest has begun and is drawing off some citrus harvest labor. Rains were beneficial, but more is needed.

DADE COUNTY -- Harvest of citrus -- surplus workers in tomato and melon harvests are needed. Harvest of citrus continues in celery harvest continues. **DADEVILLE** -- Harvest of citrus continues in Valencia County area. Weather is favorable for growing and utilization of the area. **GLADSTONE** -- Tobacco harvest is utilizing all available labor. **GLADSTONE** -- Labor is in balance with demand. **GLADSTONE** harvest very active. **GLADSTONE** vegetable harvest beginning. **GLADSTONE** -- Supply and demand of labor in balance.



FARM LABOR BULLETIN

FLORIDA STATE EMPLOYMENT SERVICE

DEPARTMENT OF COMMERCE/TALLAHASSEE, FLORIDA 32304/TELEPHONE: 599-8266

Volume 16 Number 31

May 31, 1972

SOUTH FLORIDA SUMMARY -- Most migrant workers have left the area due to seasonal decline of vegetables. Lime harvest increasing in Princeton - Homestead area. Belle Glade area needs farm equipment operators for sugarcane.

BELLE GLADE -- At least 60 farm equipment operators will be needed for sugarcane pre-harvest and harvest activities. Operators must be able to operate both wheel tractors and crawlers. Corn is in good condition despite heavy rains.

DELRAY BEACH-POMPANO -- Most migrant crews have left the area as harvest is completed in most crops. Flower companies are cleaning bulbs and some citrus growers are scraping up remaining valencias as harvest activities come to a close.

IMMOBILE-PORT MYERS -- Agricultural workers still continue to move out of area. Most crops with the exception of citrus and flowers are finished.

PRINCETON-HOMESTEAD -- Local workers employed in lime and miscellaneous vegetables harvests. Most migrants have left the area. Miscellaneous vegetables in good condition. Lime harvest increasing. Mangoes are in poor condition with harvest light. Those workers usually in mango harvest are going into limes and miscellaneous vegetables.

CENTRAL FLORIDA SUMMARY -- Valencia harvest at peak volume. Individuals and crews are needed for citrus harvest. Citrus harvest in Dundee area slowing down due to labor shortage. Tomatoes and peaches are at peak in the Tampa area.

PORT PIERCE -- Citrus harvest still active. Most farm labor in this area can work fruit for three or four more weeks. Some labor leaving for South Carolina. Vegetable harvest near completion.

ORLANDO (Includes Leesburg, Sanford and Cocoa) -- Valencia harvest at peak volume. Processing plants keeping pace with citrus harvest. A few crews and individuals could be utilized. Celery harvest continues steady. Additional celery crews could be used. Recent rains beneficial to all crops.

TAMPA -- Several crews needed to harvest valencias. Also, individuals are needed for citrus crew fill-ins. Valencia oranges in excellent condition and movement is at peak. Tomatoes and peaches at peak. No additional labor needed for tomatoes. Scattered showers have provided some relief but more rain is needed.

DUNDEE -- Crew fill-ins are needed for citrus crews. Harvest is slowing down due to labor shortage. Citrus in good condition. Workers continue to leave area. Vegetable activity tapering off.

SOUTH FLORIDA SUMMARY -- **SAFETY INFORMATION** -- Safety of workers. Be alert for workers in wet areas who will be met by school children. **SAFETY** -- Be alert for workers with demand. Preharvest activities, gladiolus harvest and mixed vegetable harvest continue. **SAFETY** -- Labor evenly distributed in balance. Tobacco and vegetable harvest utilizing all available labor. **SAFETY** -- Workers needed in Madison County for peach harvest. Melon harvest should begin in next two weeks. Tobacco harvest increasing. **SAFETY** -- Some shortage of workers in **SAFETY** as harvest reached peak this past week. Melons and tobacco will increasingly use more labor.

SPECIAL NOTICE

Due to the expected excess labor on the Virginia Eastern Shore, we would appreciate local offices doing everything possible to discourage workers from going to this area. There may be difficulty for out-of-work persons to obtain food, shelter, and health care.

DEPARTMENT OF COMMERCE / TALLAHASSEE, FLORIDA 32304 / TELEPHONE: 599-8266

June 7, 1972

1971-72 BULLETIN FOR THE 1971-72 SEASON. PUBLICATION WILL BE RESUMED AGAIN IN OCTOBER.

IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY,
Ames, Iowa, July 21, 1972.

HON. ADLAI STEVENSON III,
U.S. Senate,
Washington, D.C.

DEAR SENATOR STEVENSON: Testimony by official representatives of the land grant colleges, at your committee's hearing, was most unrepresentative of what distinguished leaders within the system have been saying about themselves.

What one hears more commonly these days are distinguished leaders crying out for internal and external leadership for new directions and priorities. This more pervasive theme is much in harmony with your own intent, I believe, and I am sure that these leaders strongly support your efforts to orient land grant research toward community development and rural welfare. I think you would find that your hearings have already had an exemplary effect. I hope your committee can proceed somewhat further into the realm of specific courses of action. A few universities and groups may be sensitive to suggestions, but those who most need some change do not respond to gentle cues.

To illustrate the real opinion of leaders in the system I am enclosing several learned papers, most of which were delivered at a Chicago meeting sponsored by the Committee on Agricultural and Rural Development, which was created by the North Central agricultural experiment stations.

In these papers, for example, the Dean of Agriculture at Purdue University, P. L. Kohle, says that—

Professionalism has had a diversionary influence on research.

"Freedom" in selection of research has not meant academic freedom in practice but rather subservience to clients.

Experiment stations and extension now have clients who exercise effective vetoes over new directions.

Colleges should, or must, now take some risks.

Enough faculty members are anxious to change their own research orientations.

Professor Earl Heady, who is perhaps the world's most distinguished agricultural economist, speaks almost as if in desperation about the need to change research funding quickly and substantially, in the direction of providing a better distribution of benefits to rural people, and for rural development. He says the current mix of research will simply play rural people under.

Loren Soth, an editor of the Des Moines Register, and respected farm commentator, has written a paper that in my opinion is considerably more provocative and radical than *Hard Tomatoes Hard Times*.

Jerry B. Waters, agricultural economist who is assistant to Senator Pearson of Kansas, says the land grant system has "too long ignored the social consequences of its technological contribution."

I also include two of my own papers. One can find numerous statements in the past acknowledging fault and advocating change, particularly in the writings of Ted Schultz, Ken Boulding, Charles Hardin, James Bonnen, and other distinguished analysts of policy for rural America. Indeed there is unanimity, practically.

The difference, now, is the sense of urgency that so many people feel, perhaps also a sense of desperation that even at this late hour they are not quite free to act with vigor.

Thanks so much for your efforts. I hope you will continue.

Sincerely,

DON HADWIGER,
Professor of Political Science.

R. L. KOHLE, DEAN PURDUE UNIVERSITY

P. 3. "It must also be recognized that a major legitimatizing mechanism to evaluate faculty performance has developed that is external to the institution. This is made up of the many organizations that surround the disciplines and the professions. . . . Some of the results simply have not been good. In addition, some of the statements and assumptions that have been made . . . are not completely true."

P. 4. "The idea of doing what you please on the part of the faculty has often been followed 'if you can find the money'. Fundamentally, in this setting, the

faculty could do as they pleased provided some granting agency agreed with them as to the area that they wish to pursue. Whether we like it or not, most granting agencies—whether federal granting agencies, private foundations, or private businesses have used their funds for a purpose. History demonstrates, I think, that in this atmosphere, most faculty are quite adept at coordinating their pleasures with the pleasures of the money sources."

P. 4. "Finally, I think it must be acknowledged that this 'laissez-fair' philosophy has never been completely dominant in the Agricultural organization of the land-grant university. Both the Experiment Station and the Cooperative Service have vocal clientele, who clamor to have some input into the nature of the programs that are to service them. Most states have found that certainly it is woe to that unit that decides to completely ignore these voices of our supporters, our users, and our interested clientele over long periods of time."

P. 10. "Once this commitment is made, we must be prepared to take academic actions which involve risk. We must be prepared to make allocation decisions as the opportunity arises to bring resources to bear on this mission. We can not logically take the position that we will move only if given more money, to do this specific job."

P. 9. "Frankly, I find that individual faculty are interested and receptive to tackling new and important problems."

P. 9. "Though it is quite true that people wish no change to upset their domain, I do not believe that this is a widespread condition of our faculties."

JERRY WATERS

P. 11. "The Land Grant system has too long ignored the social consequences of its technological contribution. It has been too slow in recognizing its responsibility to the larger rural community. This is not to say that agriculture should be ignored. Indeed there should be renewed attention to the needs of the small family farm. But the need for emphasis on agricultural production technology has diminished. And certainly the needs of the greater rural community must be considered."

EARL HEADY, DISTINGUISHED PROFESSOR

P. 3. "Last fall, I visited a small Iowa community in connection with a fall event emphasizing the progress and modern technical state of agriculture. As part of the visual quantification, a large tractor with a 10-bottom plow attached was parked on the town square. There it stood without the sign but clearly saying to the town, 'soon I will plow you under'."

"The current mix of research programs in agricultural colleges is equally designed to 'plow under' these potential clientele of public institutions. Numerous statements otherwise have been made in recent years. Yet it remains that the mix of research is still one in which the force of results which cause reductions in the farm work force, the number of farms and employment opportunities of rural towns dwarfs the power of results from research designed to resolve the income, welfare, population, and equity problems of rural communities."

FROM LOREN SOTH, "TIDES OF NATIONAL DEVELOPMENT"

P. 13. "The agricultural establishment mainly the Land Grant colleges and the Soil Conservation Service, have performed splendidly in teaching the best farmers how to control soil erosion and hold water on the land. But these agencies have provided little or no leadership for agriculture or for the country as a whole in protecting the environment." p. 13

P. 14. "Any professional establishment stands against outside critics for the good of the establishment. The Land Grant universities, in the name of the good of the Land Grant religious order, take what money they can get from whatever sources and use it the way those sources want it used. They justify misdirection of scientific resources on the ground that they must 'keep a staff together.' They must not offend their true allies in agri-business and the farm organizations who stand up for them in Congress and the legislatures to get money."

"It is high time for us to examine and reexamine the consequences of this agricultural education, research, farm-aid machine and what it is doing to the ideals of equality and fairness which were the basis for starting the whole ball rolling."

"Perhaps we should consider the thought that the 'overhead professional establishment' of our agricultural industry is overgrown. Instead of trying to expand this area continually, while the farming population is being depleted, perhaps we should think about holding back. Instead of asking for more money for agricultural programs of various kinds, most of which seem to go to a fringe of the best farmers, perhaps we should talk about reversing the flow of federal funds for other purposes. . . ."

P. 11. "In the beginning, there was no hypocrisy. But in the last 35 years or so, there has been no doubt about the incidence of the farm programs. Yet our Land Grant universities continue to talk the old line. This is the thrust of their propaganda and of the USDA propaganda. I am not revealing anything new. We all know this is true and have known it for many years." p. 11

P. 12. "The alienated man of modern society is not just an urban industrial worker, a spoke in a cog of a big corporation or a government bureaucrat. He may also be a farmer, professional agriculturist or other rural denizen who feels unable to act independently and who is driven by forces he does not comprehend."

Who Needs Help and How?New Priorities for Economic Research

by

Quentin M. West*

I am new on the job. Less than 4 months ago, I was administrator of a USDA agency which performed technical assistance and training programs for low-income nations. My professional career has been in international economic research.

So, while I may be temporarily suffering from relative inexperience in U.S. economic research, I hope this is compensated for by an equally relative lack of bias. My mind is wide open at this point. And I'm trying to balance what I see as research priorities for rural people against what I see as our current research agenda. At this point, I glimpse some gaps. It is these gaps which I would like to discuss today.

I have seen heavy emphasis on agricultural production and marketing programs in low-income nations. Food problems are still very serious in these nations and the production and marketing emphasis will continue. But, as some low-income nations achieve accelerated farm production, other problems such as low-incomes and social equity compete for attention.

*Dr. West, Administrator of the U.S. Department of Agriculture's Economic Research Service, presented this paper at the Workshop for the Directors of State Agricultural Experiment Stations, Administrative Technical Representatives of the McIntire-Stennis Cooperative Forestry Research Program and Research Coordinators of the Colleges of 1890 and Tuskegee Institute, May 2, 1972, in Arlington, Virginia.

Obviously, the highly complex and sophisticated U.S. agricultural system can in no way be compared to the agriculture of these nations. Yet, we too find that problems of low-income and social equity and the need to more fully develop our rural areas are emerging to compete for our research attention.

I ask if we are so concerned with our traditional approach in economic research that we overlook the needs of our modern rural--notice I did not say "farm"--sector. Also, are we researchers fully concerned with the impact that development in the rural sector will have on the rest of society?

HOW GOOD IS OUR SOCIAL PERSPECTIVE?

Today, I see a rapidly changing society which suggests to me the need for new research priorities--more timely, more efficient, more effective, possibly more sophisticated and complex, and, above all, more closely attuned to the to the pressing needs of our modern society.

1. The U.S. public today is part of the "now generation." Instant communications, super highways, color TV from the moon, and 35 years of affluence have made us mobile, well-educated, urbane, and acutely aware of national problems.
2. Many are troubled over what they consider misplaced national priorities and inattention to

problems relating to poverty and pollution, among others. Moreover, they are increasingly suspicious of ready-made answers, bureaucrats, and the "research-tells-us-so" attitude.

3. Americans are filled with concern over the way we live and work. Our society and economy are closely integrated; concern over one group, one industry, or one region is irrelevant unless the impact of our concern encompasses all other groups, industries, and regions. Careful evaluation is required on who gains and who loses.

I have an information man working for me who persistently asks the irritating question--who's your audience?--whenever I ask him to write something. Perhaps we researchers could take a lesson. Have we sufficiently investigated who is out there and what are their problems?

WHO'S OUR AUDIENCE?

In our life-times and long before, this has been a relatively easy question--the farmer, of course. And the farmer remains an important part of our audience or, more appropriately, our clientele. But, today, we must ask ourselves--which farmers and who else?

There are, of course, many types of farmers in America, from those who earn very little of their income on the farm, to the very large commercial operators. At the low end of

the spectrum are those who sell less than \$5,000 worth of farm products a year. They represent about 50 percent of our total farms. At the opposite end of the spectrum are the 1.8 percent of our farms with sales in excess of \$100,000.

Our traditional economic research concentrating on commercial operations is increasingly irrelevant to either of these two groups. On the top end are the big successful farmers who do not depend on publicly supported research. Their needs are different. They have the capital, know-how, and the land. They need good economic intelligence; but, relative to the smaller farmer, they have a different world of problems.

One segment of the rural population that I am concerned about are those at the low end of the income spectrum who require new initiatives in rural development-related research. Whether they prefer small-scale farming, or whether they lack capital, land, and other resources, most of them cannot expect full employment and adequate incomes from agriculture. Of these, some will leave the rural areas. But, many will remain and we want to keep more of them there. They need help in a number of social and economic adjustments.

And, I am concerned with the large portion of farmers, in the middle ground--those with farm sales of, say, \$5,000 to \$40,000 or even \$100,000--who still require commercially-

oriented research. These are important elements in our food and fiber producing system and need help to maintain and increase their incomes.

PRIORITIES FOR ECONOMIC RESEARCH

In answer to the question--who's our audience?--I suspect it is the still large group of farmers who have viable farm operations and still depend on publicly supported research. And, it is the large and growing group of rural residents who have special needs for productive employment and such social services as schools, housing, water and sewer systems, roads, and others.

Commercial Agriculture Priorities

Agriculture has been our "home base." We saw our clientele as commercial farmers and that's where we put the emphasis in our research program. Our economic research was heavily oriented toward farm management and toward higher yields, better efficiency, and technical problems in farm operations.

Commercial agriculture and returns to that sector are as important today as ever, but the priority problems commanding our attention are changing. Important new problems needing research in commercial agriculture fall into several categories:

1. Performance of the production-marketing system,
2. Structure of commercial agriculture,

3. International competition,
4. Impact of farm policies on the general public, and, in turn,
5. Impact of general public policies on agriculture.

Performance of the production-marketing system.

Increasingly, we are called upon to back-off from detailed problems at the individual farm level and to provide perspective on the performance of the food and fiber industry. We are called on to evaluate, for the general society, the abilities of the food and fiber industry and other specific commodity subsectors to deliver sufficient quantities and qualities of products for society's needs at reasonable prices and with reasonable returns to the farmers and marketing people. Thus, we are no longer just advocates of the farmer. Rather, we are analysts of the agricultural industry representing society's concerns. This constitutes a considerable shift in our perspective.

Some of the really big problems tend to cut across the traditional and somewhat artificial research "boxes" we have created. For example, I feel that the separate ERS divisions of farm production economics and marketing economics often present a stumbling block to dealing effectively with problems cutting across all stages of the beef industry, the feed grain industry, or the soybean industry.

Clearly, we must examine some of the commodity problems in terms of commodity subsectors. For example, will the beef industry be able to deliver, by the end of this decade, as much beef as Americans want to consume and at prices they consider reasonable? What are some of the economic and technological bottlenecks that may develop in this industry? What structural changes are implied or perhaps called for by the potential problems facing the beef industry? What is the competitive position of the U.S. beef industry in the world markets?

Structure of commercial agriculture.

One of the most important issues facing us today relates to changes in the structure and organization of the agricultural industry. These include declining farm numbers, increasing farm size, changing roles of corporations and conglomerates, and shifts in vertical integration and contract farming. We need to identify and explain the facts, reasons for changes, and implications of these changes. Doing this, we must focus not only on the farming sector but also the total rural area and the rest of society.

We hear much rhetoric about the family farm. Rather than getting caught up in the emotions of these arguments, we need to identify the pros and cons of alternative structures of the farming industry and present rational and viable alternatives to policy makers.

International competition.

Another research area important to commercial farmers is in the international market. One out of every seven dollars of our farm cash receipts come from exports-- amounting recently to about \$7.8 billion a year. A decline from the current level of exports of farm commodities, or even a stagnation in farm export levels, would require major adjustments in U.S. agriculture, loss of farm income, and, under present farm programs, would result in higher government costs. With strong international competition anticipated for many products, U.S. policy-makers need up-to-date assessments of the sources, nature, and extent of this competition.

We need to also study our relationship with the low-income nations, many of which are looking to exports as an important component of their development. It may be reaching that point where we should take positive action to accommodate that trade initiative of these nations. But, it is also becoming increasingly clear that the higher incomes associated with economic development in these nations help them become better customers for our farm products. For instance, Taiwan, a \$48.7 million a year concessional market for us in the early 1960's, was a \$136 million cash customer in 1971. It appears that our economic and technical assistance to these nations is definitely in our self-interest.

Related to world trade is the question involving imports, especially low-grade beef imports from New Zealand, Australia,

and Central America. We are now importing \$1 billion of meat annually. I recently asked one of our economists why our beef industry couldn't supply this special market which is accounted for to a large extent by quick-stop hamburger stands. Basically, the answer was that our livestock producers have little incentive to produce for the low-grade market. They can get higher returns by moving their beef through feedlots producing for a market which puts a premium on fat beef.

When you think that many housewives trim that fat away, that we are worried about the health effects of fats, and that the hamburger chains are growing by leaps and bounds, you also begin to wonder if maybe we shouldn't put our 60 million acres of idle land to work in producing hamburger beef. This illustrates the type of subsector concern we should have.

Impact of farm policies on the general public.

Life used to be much simpler. While the mechanical cotton harvester was being developed, we were concerned mainly with the economic benefits to cotton farmers. Were we appraising the prospects of adopting mechanical harvesting today, we would certainly be forced to examine its impact beyond the farm gate. We would have to consider social costs created by the displacement of unskilled labor; for example.

We are now studying what is happening and what will take place in the tobacco subsector as it begins to mechanize. In these studies we need to trace through the impacts of alternative development programs beyond the farm level to the impact on incomes of rural people, communities, and regions and on the social and economic structure of these communities.

Impact of general public policies on agriculture.

This year, we have been deluged with requests to evaluate the possible impacts on the agricultural industry of decisions and policies that may be made for the good of the general public. We can no longer ignore the external costs and benefits of using fertilizers and pesticides. The public is concerned about the real and imagined problems of nitrate poisoning of our streams, pesticide poisoning in our foods, and possibly cancer-causing feed additives for livestock.

What would be the impact on the livestock industry of pollution control measures setting minimum standards for feedlot run-off and for animal waste disposal? How would meat prices be affected? What would be the impact on optimum location of production? I refer you to an interesting article in the November-December 1971 issue of the Farm Quarterly which described a conflict between a huge Arizona cattle feeding operation and the developer of a nearby retirement community. The case was before the

Arizona Supreme Court after a lower court had ordered the feedlot removed from the area.

What would be the impact on the beef feeding industry of banning antibiotics in feeds? What would be the impact on agriculture of banning or limiting the use of an endless list of pesticides and other chemicals? What is the impact on the sheep industry of terminating the predator poisoning program?

As publicly supported research agencies, we would be irresponsible if we did not respond to these broader issues which relate to commercial agriculture. We must provide society and the policy decision-makers with economic intelligence on these concerns. And we must address our plant and animal research to development of alternative technologies.

Rural Development Priorities

In the past, our economic research has been heavily weighted toward commercial agriculture. Today, the pressing social and economic needs of our modern society demand additional priorities. In the rural areas, we find a large and growing clientele who do not fit the commercial farmer category.

For example:

*Some 82 percent of our rural people do not earn their living from farming.

*On half our farms, some 80 percent of the income is from nonfarm employment.

*About 17 percent of the rural residents are poverty cases compared to just 10 percent in urban areas.

It would take a computer to outline all the rural-related questions and issues facing our society. But, a broad agenda would include:

1. Bringing community services up to par,
2. Developing our human resources, and
3. Expanding employment opportunities.

Community services.

Among the elements of development of rural community services which need research attention are housing, sewer and water systems, and health services.

Rural housing. Sixty-four percent of all substandard housing in the United States in 1970 was located in rural areas and communities of less than 10,000 population. Sixty-eight percent of the U.S. homes without plumbing was also located here. Seventy percent of the housing occupied by blacks that was substandard was located in rural areas and small communities. What have we, as researchers, done about this massive problem? What programs are apt to be most effective here? What role would guaranteed family income play in helping to eliminate substandard housing?

Would mobile homes and factory built homes help to satisfy our housing needs? Are they a permanent solution or a stop-gap measure?

Sewer and water systems. The Farmers Home Administration now estimates the total need for new and improved rural community water and sewer systems to be approximately \$12 billion for towns under 5,500 population. Research is required on how effective our efforts have been to meet this need in the past. Which communities should be helped and why? Are there any real economic impacts, aside from health-related benefits, derived from the installation of such facilities in small towns?

Health. Rural health problems are part of the broader health spectrum in large part, but do present some unique characteristics. What is needed in adequate delivery of health services in rural areas? Some research is being done, but more is needed on such questions as new types of health personnel, incentives for rural practices, maternal and child health, rehabilitation, mental health, and sanitation. And, how about care for the elderly, a growing problem in rural areas?

Human resources.

More attention needs to be given on how schools in rural areas are financed. In addition, what kind of vocational training should we provide for our youth? Should we put a boy through a vocational agriculture program

when we know he cannot farm, in the future? We were teaching our youth to be farmers when maybe we should have been teaching them to be computer specialists. We neglect the social sciences when training our rural youth. We have massive social problems facing this generation yet we do not provide youth with the tools to tackle them.

Financing rural educational systems. The problems of rural schools have been with us for some time, but the nature of the research need has been changing. The talk used to be about the need for consolidation. Much of this has been accomplished. Financing, educational quality, and local control have become more complex issues. The California Supreme Court recently ruled that the traditional method of financing public schools based on a local property tax "invidiously discriminates against the poor because it makes the quality of a child's education a function of the wealth of his parents and neighbors." Farmers long have been complaining about the property tax. Now the situation may be ready to change but with many other implications. Research is needed on the benefits and costs of some of the proposed changes.

Employment.

As the rural population grows there is a need for jobs to grow apace. The role of industrialization in the development of particular rural areas needs to be considered.

Reasons for where industries want to locate need investigating. We should study the training needs of rural people and their willingness to be trained. And what is the impact of industrialization upon local governments and the degree to which low-income people have benefited from the attraction of new jobs to these areas?

TERMITES IN THE FOUNDATION OF OUR IVORY TOWER

In view of the requirements of modern America, how likely are you and I to influence necessary changes? I submit that our record is not good enough. When we do wake up to new problems, we first change project classifications, then project titles, and then only after prolonged pressures and stresses do we really change project emphasis. This is a slow, and, in terms of our Nation's emergency needs, inexcusable process.

A prime reason that the research fraternity is so unresponsive is because of just that---it's a fraternity. Too much research is generated and conducted and reported by researchers, to researchers, and for researchers. And pity the poor researcher who steps out of line in the system. The old saying "publish or perish" might well be "publish as acceptable to economic journals or perish". We are good researchers and our test criteria for research are difficult and demanding; but, do they demand the right tests? Far too few researchers even ask--let alone are able to answer--who is this research project designed to help and how will it help them?

The system will not change unless research administrators establish tougher guidelines for approval of projects and expenditures of public funds.

This means directing researchers to undertake projects they may not have preferred and holding them to priorities.

It means demanding results from research over and above mathematical and literary elegance.

It means choosing the public interest, rather than the economics journal, as the final repository of results.

And it means establishing and moving research teams of adequate size and training to get the job done. If this means insensitivity toward the so-called prerogatives of the research prima donna who has his territory mapped out and means to defend it as his own, so be it.

I'm talking about tough research direction governed by national needs. This will be opposed by some on grounds of academic freedom and research prerogatives and by others on grounds of appropriate professional recognition and reward. These are problems. I would not propose that all research be team research focused on national problems. But, I am proposing that more research be so organized and so directed.

There are termites in the foundation of our ivory tower. We need to climb down and get our feet on the ground where the action is.

When our agricultural research system was established 50 years or more ago, it was focused on the most pressing

national problems. We had our feet on the ground then. But, these problems have changed. Has our research mechanism kept pace so that it continues to focus on national priorities?

I am convinced by my recent reviews that it has not. How do my impressions of pressing national problems stack up against our national research agenda--and the agenda you are building at your own university? Are we really beyond the title changing stage? And where we are, are we really moving as fast as we should?

I suggest that we are not--that we are still pre-occupied by many of the same old problems, many times studied and reported in the same old ways. Our research progress has been far more apparent than real.

We in ERS are preparing to ask the hard questions in areas where we have not done so. We intend to begin filling research gaps opened by new national concerns. Not all at once, to be sure, but we intend to get started now.

If the questions are harsh, it is because the stakes are high and the time short.

DR. H. R. FORTMANN
 REGIONAL COORDINATOR, NORTHEAST ASSOCIATION OF
 STATE AGRICULTURAL EXPERIMENT STATIONS
 THE PENNSYLVANIA STATE UNIVERSITY
 (Resident Education - Dr. Jerome K. Pasto
 Extension - Dr. Thomas King
 Editing - Mr. Jack MacMillan)

CHAPTER XI

COLLEGES OF AGRICULTURE REVISITED

"For history is a pontoon bridge. Every man walks and works at its building end, and has come as far as he has over the pontoons laid by others he may never have heard of. Events have a way of making others inevitable; the actions of men are consecutive and indivisible. The history of the Cypress Hills had almost as definite effects on me as did their geography and weather, though I never knew a scrap of that history until a quarter century after I left the place." (Stagner, 1962:94-95).

The traditions, the history and the spirit behind the concept of the State Colleges of Agriculture and the staggering obstacles that impeded their establishment are chronicled in detail in *State Agricultural Experiment Stations: A History of Research Policy and Procedures* (Knoblauch, et al., 1962). The full impact of the frustrations is conveyed most poignantly in a discussion of the efforts of John Pitkin Norton to establish an agricultural college with a visible research arm. "In order to combat conservatism he first had to change the educational system; but to change the system he first had to conquer conservatism."

"Norton could see no escape from this predicament. He resigned hope of introducing a system of scientific agriculture into New England. He turned instead to New York State, a "newer country" where farmers perhaps might appreciate the advice of scientists, and in 1851 put his willpower and overtaxed physique into a movement for a State University there. That campaign halted his missionary work;

he encountered a frustration more decisive than discouragement and disillusionment: death in 1852 at the age of 30." (Knoblauch, 1962:13).

Review of the efforts leading to the passage of the Act of 1862 Donating Lands for Colleges of Agriculture and Mechanic Arts (First Morrill Act) which was signed by President Abraham Lincoln July 2, 1862 (12 Stat. 503) reveals a fascinating mosaic of contradictions. The forces of greed, selfish expectations, blind opposition, myopic conservatism and blatant ignorance fortified by the weight of apathy of the general public, maintained a standoff with the idealistic efforts of a handful of dedicated visionaries. Surely these early efforts, which relied heavily on related experiences in Scotland, England, and Germany were but fragmentary stepping stones. The first pontoon was passage of The Land Grant Act - "Donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts." This Act granted to the several states an amount of public land equal to 30,000 acres for each Senator and Representative in Congress based on the census of 1860. The record of use and abuse of these grants makes fascinating reading.

What is most important is that the Land Grant College concept had been established as a legal entity. It provided a solid pontoon with a building end. The progress and the accomplishments of those who added pontoons to the structure, within which those who served the people more directly, stand as enduring monuments to each as individuals, but more importantly as a tribute to the concept of the Land Grant College idea - the most successful experiment in education and service for all the people the world has ever known.

The Colleges of Agriculture within the Land Grant system typically operate on three distinct but integrated fronts: The Agricultural Experiment Station for research, Resident Education and Cooperative Extension. A series of Acts provided the enabling legislation for appropriations to carry out the missions of the three divisions. These are the pontoons which serve as the foundation for operations on all three fronts.

The Hatch Act of 1887 (Approved March 2, 1887. (24 Stat. 440)). "AN ACT To establish agricultural experiment stations in connection with the Colleges established by the Morrill Act of 1862."

The Adams Act of 1906 (Approved March 16, 1906. (34 Stat. 63)).
(Section 1 clarified; 34 Stat. 669). "AN ACT To provide for an increased annual appropriation for agricultural experiment stations and regulating the expenditure thereof."

The Smith-Lever Act of 1914 P.L. 63-95 (Approved May 8, 1914. (38 Stat. 372)). "AN ACT To provide for cooperative agricultural extension work between the agricultural colleges in the several States receiving the benefits of an Act of Congress approved July second, eighteen hundred and sixty-two, and of Acts supplementary thereto, and the United States Department of Agriculture."

The Smith-Hughes Act of 1917, P.L. 64-347 (Approved February 23, 1917 (39 Stat. 929)). "AN ACT To provide for the promotion of vocational education; to provide for cooperation with the States in the promotion of such education in agriculture and the trades and industries; to provide for cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure."

The Purnell Act of 1925. (Approved February 24, 1925 (43 Stat. 970)). "AN ACT To authorize the more complete endowment of agricultural experiment stations and for other purposes."

The Bankhead-Jones Act of 1935 (Approved June 29, 1935 (49 Stat. 436)). "AN ACT To provide for research into basic laws and principles relating to agriculture and to provide for the further development of cooperative agricultural extension work and the more complete endowment and support of land grant colleges."

Amendment of the Bankhead-Jones Act and the Agricultural Marketing Act of 1946 (Approved August 14, 1946 (60 Stat. 1083)). "AN ACT To provide for further research into basic laws and principles relating to agriculture and to improve and facilitate the marketing and distribution of agricultural products."

Act of 1955 Consolidating the Hatch Act and Laws Supplementary thereto, P.L. 84-352 (Approved August 11, 1955 (69 Stat. 671)). "AN ACT To consolidate the Hatch Act of 1887 and laws supplementary thereto relating to the appropriation of Federal funds for the support of agricultural experiment stations in the States, Alaska, Hawaii, and Puerto Rico."

The McIntire-Stennis Act of 1962 P.L. 87-788 (Approved October 10, 1962 (76 Stat. 806)). "AN ACT To authorize the Secretary of Agriculture to encourage

and assist the several States in carrying on a program of forestry research, and for other purposes."

The Physical Facilities Act of 1963 P.L. 88-74 (Approved July 22, 1963 (77 Stat. 40)). "AN ACT To assist the States to provide additional facilities for research at the State agricultural experiment stations.

The Special Grants Act of 1965 P.L. 89-106 (Approved August 4, 1965 (79 Stat. 431)). "AN ACT To facilitate the work of the Department of Agriculture and for other purposes." Section 2 of this act specifically authorizes grants to State agricultural experiment stations and others for research to further the programs of the Department of Agriculture.

THE STATE AGRICULTURAL EXPERIMENT STATIONS

The effort involved in preparing this chapter will be deemed worthwhile if three concepts can be transferred to the minds of the reader. First, that the term agricultural research, as commonly used, covers a tremendously complex array of subject matter which directly or indirectly affects the lives of all Americans and indeed of all mankind. Second, that fundamental orderliness exists for planning and coordination of the research effort and accounting for expenditure of funds. And, third, that agricultural research and agricultural researchers are responsive to the needs of the present, mindful of the demands of the future, and, as a body, truly dedicated to the service of man.

Each has been the subject of a great many books, articles, symposia, study groups, reports, speeches, and actions. I shall treat each separately, though they are obviously inextricably intertwined in practice.

THE SCOPE OF AGRICULTURAL RESEARCH

Perhaps the most meaningful way to describe the scope of agricultural research is to discuss the goals and the system of research classification. There are variations, further breakdowns, and additions to those to be described. But these have the advantage of widespread dissemination among and acceptance by those who conduct and administer agricultural research; state, federal, and private industry.

THE GOALS

"The paramount goal of the United States was set long ago. It is to guard the rights of the individual, to ensure his development, and to enlarge his opportunity. It is set forth in the Declaration of Independence drafted by Thomas Jefferson and adopted by the Continental Congress on July 4, 1776." (Goals for Americans, the Report of the Presidents Commission on National Goals. Prentice-Hall, 1960.)

"This ultimate goal may be translated into such generally accepted overall objectives as increasing the gross national product of the country and personal wealth of individuals, improving the level of living for all Americans, preserving peace throughout the world, continuing a strong defense posture, maintaining a high level of employment, conserving and developing our national resources, and sustaining the freedom of individuals." (A National Program of Research for Agriculture. (Report of a Study Sponsored Jointly by: Association of State Universities and Land Grant Colleges and U.S. Department of Agriculture. October 1966. p. 32)).

The Hatch Act states, "It shall be the object and duty of the State Agricultural Experiment Stations...to conduct original and other researches, investigations, and experiments bearing directly on and contributing to the establishment and maintenance of a permanent and effective agricultural industry of the United States, including researches basic to the problem of agriculture in its broadest aspects, and such investigations as have for their purpose the development and improvement of the rural home and rural life and the maximum contribution by agriculture to the welfare of the consumer, and may be deemed advisable, having due regard to the varying conditions and needs of the respective states."

A Joint SARE-USDA Task force appointed by the President of the National Association of State Universities and Land Grant Colleges and the Secretary of agriculture in 1965 agreed upon ten goals which enunciate the role of the SARE and USDA in working toward the overall National Goals. Our purpose will be served adequately by simple enumeration of the titles. Details are available on pages 34-36 of the report A National Program of Research for Agriculture.

- I. Insure a stable and productive agriculture for the future through wise management of natural resources.
- II. Protect forests, crops and livestock from insects, diseases, and other hazards.
- III. Produce an adequate supply of farm and forest products at decreasing real production costs.
- IV. Expand the demand for farm and forest products by developing new and improved products and processes and enhancing product quality.
- V. Improve efficiency in the marketing system.
- VI. Expand export markets and assist developing nations.
- VII. Protect consumer health and improve nutrition and well-being of the American people.
- VIII. Assist the more than 50 million rural Americans to improve their level of living.
- IX. Promote community improvement including development of beauty, recreation, environment, economic opportunity, and public services.
- X. Enhance the national capacity to develop and disseminate new knowledge and new or improved methodology for solving current problems or new problems that will arise in the future.

CLASSIFICATION OF RESEARCH

The system of classification for agricultural research employed by the 53 State Agricultural Experiment Stations and the U.S. Department of Agriculture is unquestionably the most extensively and intensively used of any system in the world. Mainly because it is usable and useful. It is comprehensive, comprehensible and manageable. It is useful to the scientist in planning and conducting research. It is an invaluable tool to the administrator in the management of the research effort, and in planning and coordinating research programs. These things are true because it is completely operational at both the State Stations and the USDA.

RESEARCH PROBLEM AREAS (RPA'S)

Ninety-eight RPA's encompass the total research program. These are arranged in nine groups under the first nine goals listed above. They include such divergent areas as:

- 102. Soil, Plant, Water, Nutrient Relationships
- 105 Conservation and Efficient Use of Water
- 107 Watershed Protection and Management
- 204 Control of Insects, Mites, Slugs, and Snails on Fruit and Vegetable Crops
- 214 Protection of Plants, Animals, and Man from Harmful Effects of Pollution
- 302 New and Improved Forest Engineering Systems
- 304 Improvement of Biological Efficiency of Fruit and Vegetable Crops
- 312 Environmental Stress in Production of Livestock, Poultry and Other Animals
- 318 Non-Commodity-Oriented Biological Technology and Biometry
- 404 Quality Maintenance in Storing and Marketing Fruits & Vegetables
- 503 Efficiency in Marketing Agricultural Products & Production Inputs
- 602 Evaluation of Foreign Food Aid Programs
- 603 Technical Assistance to Developing Countries
- 701 Insure Food Products Free of Toxic Contaminants Including Residues from Agriculture and Other Sources
- 705 Selection and Care of Clothing and Household Textiles
- 706 Control of Insect Pests of Man and His Belongings
- 708 Human Nutrition
- 804 Improvement of Economic Potential of Rural People
- 805 Communication and Education Processes
- 808 Government Programs to Balance Farm Output & Market Demand
- 901 Alleviation of Soil, Water and Air Pollution and Disposal of Wastes
- 903 Multiple Use Potential of Forest Land and Evaluation of Forestry Programs
- 904 Fish and Other Marine Life, Fur-Bearing Animals & Other Wildlife
- 906 Culture & Protection of Ornamentals & Turf
- 908 Improvement of Rural Community Institutions & Services.

THREE DIMENSIONAL SUBCLASSIFICATION

Further specification is provided by designating: a) What? The Commodity, Resource or Technology not Associated with specific Commodities or Resources is the object of the research, b) Why? The purpose or type of Activity in the research, and c) How? The Field of Science used in doing the research.

Commodity, Resource or Technology not Associated with Specific Commodities

Fifty-eight prime classification items are arranged under four broad groups.

* These broad headings with abbreviated examples under each illustrate this dimension. There are appropriate sub-divisions under each.

COMMODITIES, & THEIR PRODUCTS

& NATURAL RESOURCES

0100 Soil & Land
 0300 Watersheds & river basins
 0400 Air & Climate
 0600 Trees, forests, & forest products
 0800 Fish, shellfish, game & fur-bearing animals & other wildlife & their habitats
 1000 Deciduous & small fruits & edible tree nuts
 1200 Vegetables
 1300 Ornamentals & turf
 1400 Corn
 1600 Rice
 1700 Wheat
 2000 Forage crops
 2100 Cotton
 2300 Soybeans
 2400 Peanuts
 2700 Sugar crops
 2900 Poultry
 3000 Beef cattle
 3100 Dairy cattle
 3200 Swine

MANMADE RESOURCES

3700 Clothing & Textiles
 3800 Food
 3900 Structures & facilities

HUMAN RESOURCES, ORGANIZATIONS & INSTITUTIONS

4000 People as individual workers, etc.
 4200 The farm as a business enterprise
 4400 Agricultural economy of United States & sectors thereof
 4800 Marketing systems & sectors thereof

TECHNOLOGY NOT ASSOCIATED WITH SPECIFIC COMMODITIES OR RESOURCES

6200 Seed research
 6300 Biological cell systems
 6400 Experimental design & statistical methods
 6500 Invertebrates
 6600 Microorganisms, viruses, etc.

Activity - Forty Activity items are grouped under nine headings listed below with abbreviated examples.

Conservation, development & use of soil, water, forest & related resources

4300 Resource development, conservation & management

Protection of man, commodities, resources & their products from losses, damage or discomfort

4500 Protection against insects, mites, snails, & slugs & their control agents
 4600 Protection against diseases, parasites, & nematodes & their control agents
 4830 Protection against pollutants
 4680 Protection against allergens, toxins & poisonous plants

Efficient production & quality improvement

- 4900 Biology of Plants & Animals
- 5100 Increasing consumer acceptability of farm & forest products
- 5300 Management of labor, capital & other inputs

Product development & processing

- 5400 Chemical & physical properties of food products
- 5500 Developing new & improved food products & processes

Efficient marketing, including pricing & quality

- 5800 Identification, measurement & maintenance of quality
- 6000 Analysis of supply, demand & price, including interregional competition

Improvement of human nutrition, shelter, & consumer satisfaction

- 6300 Nutritional values, consumption patterns, & eating quality of foods
- 6400 Quality of family living, including housing, management & use of time, money & other resources

Development of human resources & of economies of communities, areas & nations

- 6600 Economic development & adjustment
- 6700 Improvement of social well-being, including social services & facilities & adjustment to social & economic changes

General Methodology, Technology and Evaluation

- 7000 Design of experiments & methods of statistical analysis
- 7200 Information documentation & retrieval
- 7300 Evaluation of public programs, policies & services

Field of Science - The 78 Fields of Science are arranged under three headings as listed below with selected examples.

Biological

- 0110 Biochemistry & biophysics - animal
- 0113 Biochemistry & biophysics - human
- 0212 Biology - Environmental, systematic, applied - plant
- 0412 Entomology - animal
- 0512 Plant Genetics & Breeding
- 0710 Microbiology - animal
- 0812 Nematology - plant
- 0913 Nutrition & metabolism - human
- 1010 Parasitology - animal
- 1112 Pathology - plant
- 1310 Physiology - animal
- 1412 Virology - plant

Physical

1526 Chemistry - organic
 1920 Engineering - agricultural
 1928 Engineering - industrial
 2020 Geology & geography
 2120 Hydrology
 2230 Statistics & biometry
 2320 Meteorology & climatology

Social & Behavioral

2530 Anthropology
 2630 Economics
 2930 Law
 3230 Sociology
 3310 Art & Architecture

All of the approximately 25,000 active research projects in the 53 State Agricultural Experiment Stations are classified by RPA and the three dimensions Commodity, etc., Activity, and Field of Science. Details and descriptions of these facets of research classification are presented in a readily available document:

MANUAL OF CLASSIFICATION
 OF
 AGRICULTURAL AND FORESTRY RESEARCH

Prepared by Research Classification Subcommittee
 Agricultural Research Policy Advisory Committee
 Issued by
 U.S. Department of Agriculture
 Science and Education Staff
 Washington, D.C.
 June 1970

PACKAGING OF RESEARCH

Effective discussion of research has been enhanced by organization into six Research Program Groups made from appropriate grouping of 39 Research Programs. The Research Programs are Resource-, Commodity- and People-oriented. This organization is particularly useful in planning and determining research needs with task forces and commodity groups. As listed below they summarize the scope of agricultural research in this country.

RESEARCH PROGRAM GROUPS AND RESEARCH PROGRAMS

RPG 1.00 NATURAL RESOURCES
 RP 1.01 Soil & Land Use
 RP 1.02 Water & Watersheds
 RP 1.03 Recreation
 RP 1.04 Environmental Quality
 RP 1.05 Weather Modification
 RP 1.06 Fish & Wildlife
 RP 1.07 Remote Sensing

RPG 2.00 FOREST RESOURCES

RP 2.01 Forestry

RPG 3.00 CROPS (FIELD & HORTICULTURAL)

RP 3.01 Corn
 RP 3.02 Grain Sorghum
 RP 3.03 Wheat
 RP 3.04 Small Grains Other than Wheat
 RP 3.05 Rice
 RP 3.06 Soybeans
 RP 3.07 Peanuts
 RP 3.08 Sugar
 RP 3.09 Forage, Range, & Pasture
 RP 3.10 Cotton
 RP 3.11 Tobacco
 RP 3.12 New Crops & Minor Oilseeds
 RP 3.13 Fruit
 RP 3.14 Vegetable Crops
 RP 3.15 Plants to Enhance the Environment
 RP 3.16 Bees & Other Pollinating Insects

RPG 4.00 ANIMALS

RP 4.01 Beef
 RP 4.02 Dairy
 RP 4.03 Poultry
 RP 4.04 Sheep
 RP 4.05 Swine
 RP 4.06 Other Animals
 RP 4.07 Aquatic Foods & Feedstuffs

RPG 5.00 PEOPLE, COMMUNITIES,
& INSTITUTIONS

RP 5.01 Food & Nutrition
 RP 5.02 Food Safety
 RP 5.03 Rural Development &
 Quality of Family
 Living
 RP 5.04 Insects Affecting Man
 & His Belongings
 RP 5.05 Research on Administra-
 tion of Research

RPG 6.00 COMPETITION, TRADE,
ADJUSTMENT, & PRICE
& INCOME POLICY

RP 6.01 Farm Adjustment, Prices
 & Income
 RP 6.02 Foreign Agricultural
 Trade & Economic
 Development
 RP 6.03 Marketing & Competition

ORDERLY ADMINISTRATION FOR PLANNING AND COORDINATION

The State Agricultural Experiment Station system now functions with one station in each of 48 of the states and Puerto Rico and two in New York and Connecticut. In 1972 total scientific effort involves about 6,400 scientist-man-years. Expenditures total over 330 million dollars. The recognized efficiency of this operation may be attributed to six factors. First must be the rather universal dedication of the people involved to the service of mankind. Second has been a fundamental policy of identifying of the problems to be solved and devising procedures to solve them. Third has been a continued insistence on quality research. Fourth has been gradual growth from very humble beginnings. Fifth has been continuity of funding and assurance that immediate solutions were not a prerequisite to continued funding of soundly conceived research projects. And sixth has been the continued existence of effective administrative procedures.

to develop and approve projects and insure for appropriateness of the expenditure of funds.

The administrative checks and balances have been more internal than external. The fact remains that an important role has been exercised by the Cooperative State Research Service (CSRS-USDA), and its predecessor agencies. It serves as the federal agency to carry out the legislative mandate which charges the Secretary of Agriculture "with the responsibility for proper administration of this act (the Hatch Act), and is authorized and directed to prescribe such rules and regulations as may be necessary to carry out its provisions." In addition to assuring compliance with the letter and spirit of the legislative authorizations for federal funds the staff of CSRS fill important functions in approving and improving research proposals, in planning and in coordination of research. Not always recognized is the significance of the buffer which a federal overseeing agency provides against pressures by various forces to misdirect if not misuse federal as well as state funds appropriated for the conduct of agricultural research as elaborated in enabling state and federal legislation.

In the 85 years since passage of the Hatch Act, directors of the state stations have exercised major control over their own affairs. The backbone of this control consists of systematic procedures at each of the stations to identify priority problems, develop projects to seek solutions, and maintain the kind of staff which can execute this research. A second facet of this self-direction is the four Regional Associations of Experiment Station Directors which assemble three times a year to consider problems of mutual concern including coordination of research effort and development of policies and procedures to most effectively carry on research. The Experiment Station Committee on Organization and Policy (ESCOMP), proposed and organized in 1905, serves as a unifying body in the promulgation of general policies and procedures. It and its several subcommittees function on a continuing basis and meet twice a year or more frequently when necessary.

Early efforts to organize an intercollegiate association devoted to promoting efficient experimentation provided the impetus for the establishment in 1885 of what is now the National Association of State Universities and Land Grant Colleges. Today the Division of Agriculture in NASULGC is but one of many divisions. The Experiment Station Section provides the connecting link between the regional

associations and the governing board of NASULGC.

The work of far-sighted individuals and numerous committees over the years has provided a framework and precedent-setting safeguards to ensure that funds were not diverted to uses other than those for which they were intended. The report of the Dabney Committee, adopted in 1887, set a major precedent for the Association and the stations. The report differentiated the operations of the station and college and carefully enunciated the standards to be observed in the expenditure of Federal funds.

"... all appropriations...should be applied in good faith to agricultural research and experiment, and the dissemination of the results thereof among the people and that any diversion of funds to the general uses of the college would be a direct violation of the plain spirit and intent of the law, and an inexcusable disappointment of just public expectations. "...the experiment stations...should be as far separate and distinct from the colleges that it shall be possible at any moment to show...that all of the funds...have been expended solely for the purposes of agricultural experimentation according to the intent of the law." (Proceedings of the First Annual Convention (1887) of The Association of American Agricultural Colleges and Experiment Stations, 6 pp. (NOTE: No account of this convention was printed originally. However, a manuscript summary by C. E. Thorne, Secretary of the Convention, which was filed in the Office of Experiment Stations was ordered printed by the Executive Committee of the Association on May 5, 1941.) (Knoblauch, 1962. pp. 64,79). The safeguards against misuse or misdirection of research funds has not precluded the development of strong and mutually beneficial ties between the research and teaching functions in the Colleges of Agriculture. In fact the common pattern is that the majority of scientists on experiment station staffs devote assigned portions of their time to teaching duties with commensurate arrangements for payment of salaries and operating expenses. It can be argued that this association is a source of the success of both.

NEW DEVELOPMENTS AND NEW PATTERNS

A very real source of strength in agricultural research is the existence of three separate (though not isolated) and strong programs of research; that of the State Agricultural Experiment Stations; that of the United States Department of

Agriculture; and that of private industry. Each has unique advantages and strengths. Each has identifiable weaknesses. Not the least among the advantages of this tripartite system of research is the incentive provided by the sense of competition, and the pride of achievement, though this rarely exists as a visible force.

Partisan supporters can be found for arguments that one or the other could do it all better. Ultimately the consumer must pay for all research. I would argue that the research needs of this country are best served by maintaining the integrity and the strength of all three, provided there is a continuing effort to coordinate their separate as well as their cooperative programs.

THE LONG RANGE STUDY OF AGRICULTURAL RESEARCH NEEDS

The so-called Long Range Study of Agricultural Research Needs will surely survive the test of time as a significant pontoon which has given rise to many new developments and the nuclei for new patterns to enhance the total program of agricultural research for this country.

Impetus for the study came at the request of the Senate Committee on Agricultural appropriation. Details are contained in Senate Report No. 156, Committee on Appropriations, April 9, 1965. It states on pages 3 and 4:

"NEED FOR EVALUATION OF AGRICULTURAL RESEARCH

".....It is now recommended that the Secretary of Agriculture give immediate consideration to the establishment of an appropriate Research Review Committee comprised equally of representatives of the land-grant experiment stations, departmental research activities, affected producer organizations, and with appropriate industry representation to examine fully each and every line of agricultural research conducted by the Department and by the State Experiment Stations."

"The Committee recommends that the Secretary of Agriculture, in close cooperation with the appropriate representatives of the State Experiment stations, develop and submit to the committee within the next 60 days a program proposal setting forth the general outline of the content and scope of such a review of the research programs conducted by the Department, by the States and financed by cooperating industry contributions, which would be directed toward the general objective of making recommendations on the respective roles, responsibilities, and areas of cooperative effort that should be examined to arrive at an overall evaluation as the basis for future recommendations involving the realignment and reassignment of research responsibilities for existing programs, and also to be used as the basis for projecting agricultural research requirements for the next several years."

The plans for this study were laid at a meeting between the Secretary of the U.S. Department of Agriculture (USDA) and the Chairman of the Executive Committee of the Association of State Universities and Land-Grant Colleges (ASULGC). They

agreed that the study would be carried out by USDA and State Agricultural Experiment Station (SAES) representatives assigned by USDA and the Experiment Station Committee on Organization and Policy (ESCOP), respectively. Reviews of the study were to be conducted by the National Agricultural Research Advisory Committee (NARAC), the Committee on Agricultural Science (CAS), the Agricultural Research Planning Committee (ARPC), ESCOP and the Secretary's Staff,

The Secretary of Agriculture and the Executive Committee, ASULGC, were to be jointly responsible for the submission of the final report to the Senate Committee on Appropriations.

The joint SAES-USDA Task Force consisted of six state station members, including a representative of Home Economics and six USDA members with a co-chairman from each group. The final report was made 18 months later. It was a 272 page document backed up by voluminous detail in supplementary reports and working documents. The committee had devoted essentially full time and utilized inputs from all the station directors, USDA agency administrators and a veritable horde of consultants, technical review panels and persons in and out of government.

The task force set these objectives for the Study:

1. Define the goals, purposes, and scope of agricultural and forestry research to serve the future needs and values of the American people at the local, national and international level.
2. Develop a research classification system, compatible with the information retrieval plans of the National Agricultural Library and the proposed Current Research Information System to facilitate more uniform and effective planning, development, evaluation, reporting, administration, and coordination of agricultural and forestry research by the Department, the State Agricultural Experiment Stations, industry and other institutions.
3. Inventory quantitatively the allocation of USDA-SAES Research activities by specific fields, and of industry and others by broad fields, in order to provide a basis for future allocations.
4. Project the research needed during the next decade to help people adjust to their changing economic and social environment and to improve their well being, and to meet the Nation's future requirements for agricultural and forestry products and resources.
5. Recommend relative emphasis for projected research for use of administrators and the Congress in making judgments concerning the distribution and level of support for different areas of research.
6. Consider the respective roles, responsibilities, and areas of cooperative effort among the Department, State Agricultural Experiment Stations, and others and recommend improved arrangements for planning, developing, financing and coordinating and administering the total agricultural research program.

Definition of the goals and scope of agricultural research was an obvious and essential point in beginning the study. A classification system was devised. Essential details were discussed earlier in this chapter. A comprehensive inventory of research, public and private, was accomplished. And research needed for the next decade was estimated. (The Task Force projected a needed and justifiable increase of 76 percent in public research effort over the 1965 level. The facts are that by FY 1971 essentially no increase in research effort had occurred and in terms of 1965 dollars there was some decrease.)

Little progress was made in defining the respective roles of SAES, USDA, and others (primarily industry). However, as direct or indirect consequences of the extended deliberations of the Task Force and associated groups a number of positive actions have taken place. Included are such items as:

- 1) Employment of a regional coordinator or regional director for each of the four regional associations of SAES. Creation of these positions has added a new dimension to the State Station's potential to plan and coordinate their individual and collective programs of research; to participate effectively in the continuing dialogue of determining the respective roles of SAES, USDA, industry and others in agricultural research; to have continuously available members to function as staff participants of the Agricultural Research Planning and Facilities (ARPF) subcommittee of the Agricultural Research Policy Advisory Committee (ARPAC) which advises NASULGC and the Secretary of Agriculture on policy matters; and to provide a continuing mechanism for the accumulation, interpretation and assembly of documentation on facility and program needs of the state stations as a vital input to budget development and support. Preparation and support of appropriation requests is a continuous and complex process with components of three years appropriations simultaneously involved (currently 1973, 1974 and 1975).

- 2) The structure of Regional Planning Committees (RPC's) has been developed and approved by the four regional Associations of State Station Directors, the USDA, and industry. Membership and participation by these three groups on each of the four RPC's is planned. In the case of the Northeast Region the RPC will include specifically designated members to obtain representation of Forestry, Home Economics, Extension, The Colleges of 1890, and Industry in addition to the SAES and USDA members. The RPC's will function generally on the regional level but will not be constrained from interrregional efforts when this is advantageous.

There will be a two way flow of information and communication among the 4 RPC's and up and down between the RPC's and the Agricultural Research Planning and Facilities subcommittee of ARPAC operating at the national level. The RPC's will utilize the 39 Research Programs (see pages 10 & 11) as the base from which to operate. Each RPC will concern itself with only those Research Programs that are important within the region. They will assess priority of research needs within and among these. They will recommend on division of effort within and among potential performers of research needed. Appropriate task forces will function for each of the Research Programs.

3) CURRENT RESEARCH INFORMATION SYSTEM (CRIS)

Ready availability of reliable, usable current information on the research which is being done is an absolute prerequisite to any kind of meaningful management, planning, and coordination of research effort.

The Current Research Information System (CRIS) which functions as a unit of CSRS-USDA satisfies this need. Initiated in 1966 and fully operational in 1970 it is unquestionably the most useful scientific research information storage and retrieval system in existence.

Included in the system are the following kinds of information on all current research in about 25,000 State projects and 6,000 USDA work units:

- a) The title, project leaders, objectives, procedures, reports of progress, and publications.
- b) The location and performing station or agency.
- c) Funds expended for the previous fiscal year, by source of funds.
- d) Scientist-man-years devoted to each project.
- and e) Complete classification - by RFA; by Commodity, Resource, or Technology not oriented to Specific Commodity; by Activity; by Field of Science; and by certain special concerns such as pollution - and health-related. The system, is programmed to provide print-outs organized under the 39 Research Programs.

An individual scientist or group of scientists can obtain relevant information on any topic of concern including a summarization of all research currently underway: What is being done? How? By whom? Where? and How much? An annual publication summarizes the research effort for the previous fiscal year. This report is organized to display the information in terms of dollars by source of funds and

scientist-man-years, according to performing agency, location with regional sub-totals, and by the various ways of classification. In addition, arrangements can be made to get reports to meet specific requirements needed for regional, sub-regional, or state planning and coordination.

CRIS is not without critics and detractors. Some complain about the work required to provide the necessary inputs. Others complain about the delays in providing annual summaries and shortcomings in accuracy of classification, and financial and scientist-man-year data. In defense of CRIS it should be noted that the system is new; it is beleaguered by staffing and budget problems of its own. (Its projected budget for FY 1973 is about \$522,000 compared to \$9.5 million for the Science Information Exchange.); most of the inaccuracies can be traced to the originating point of the data and will be reduced by means of continuing educational processes and improved mechanisms for providing and recording the inputs; and the delays, many of which stem from delays in providing CRIS with the inputs plus quite phenomenal demands (usage) for the service, will be reduced by improved input and programming techniques along with resolution of staffing problems. Despite these problems, which are recognized and will be solved, CRIS is operational. It is a basically sound system and it is satisfying an essential need.

4) A characteristic of the individual station directors and the four regional associations is their penchant to jealously protect prerogatives for independent action. On balance and over time this proves to be a significant source of strength of the SAES system. As a consequence each of the four SAES regions have developed varying procedures for approaching the problems of research planning and coordination. Procedures adopted in the Northeast exemplify the kinds of activities taking place.

By 1967 the four stations in New Jersey, New York and Pennsylvania had joined forces to effect better Agricultural research coordination within the subregion. The NJYPARC group organized ten task forces to review current research, assign priorities for the future and work out program shifts within and among stations. This is of necessity a continuing process but significant changes and shifts have already resulted.

Corn and forage breeding programs have been terminated at Rutgers with assurance that they could rely on the programs (with some expansion) at Penn State and Cornell. They in turn expanded their efforts in waste disposal and pollution

control. The corn breeding programs of Cornell and Penn State were modified to expand effort on the short season hybrids by Cornell and the long season hybrids by Penn State. Agreement was reached on shifts within facets of many programs whereby each of the stations took portions of the problem in order to concentrate their effort. It is obvious that the total effort is the stronger for this planning and coordination.

The New England States Agricultural Research Coordination (NESARC) project was activated in July 1971. It has taken a broader viewpoint, encompassing research, education and extension activities in its projected scrutiny. Its activities are centered around the 39 Research Programs. It involves consideration of the value and impact of resources, commodities and programs on the people of each state; the research, teaching and extension resources, responsibilities and opportunities in each state; and an analysis of current staff resources with the specific intent, of ascertaining the potential for shifting programs within the constraints of existing personnel. Promising procedures have been developed to assemble and analyze the current situation and recommend shifts which will operate to the benefit of this subregion.

The Delaware, West Virginia and Maryland (DEWMARC) subregion is in the process of organizing.

In the final analysis, planning and coordination must consider and must involve, in different degrees to be sure, the scientists, the administrators, industry groups, consumers and the public in general. No efforts will succeed without complete commitment of all concerned to a common objective. Participation without cooperation is destined to failure. The SARE people have demonstrated their desire to participate and cooperate in the planning and coordination they know must be done. They will do it.

THE WILL TO BE RESPONSIVE TO CURRENT NEEDS

The state experiment stations have repeatedly called attention to the fact that they operate as the focal point for problems of the people they serve. Their scientific staffs are the most aware of current and potential problems of any group. They are in close contact with the extension network which functions in every state. They listen to and utilize the advice and services of a wide spectrum of producer, processor, consumer and "user" groups. It can and has been documented that the

stations have been responsive to changing needs.

The administrators of research bear the responsibility of striking a reasonable balance between maintaining adequate continuity of research projects and running the risk of obsolescence --- "beating dead horses". To err toward either extreme --- clinging to research of the past dealing with problems of the past, vs. jumping on every new bandwagon --- is equally regrettable. The one leads to emphasis on the obvious (adequately researched) or no longer relevant problems. This of necessity, given fixed limits in available resources, precludes directing attention to other areas - be they new or otherwise. A policy of dropping support and discontinuing projects before the objectives have been achieved is equally wasteful.

Balance, avoiding the two extremes, is achieved by having feasible procedures for project development, project review and approval and continuing procedures for program planning and coordination.

This means utilizing a range of inputs for identifying new and potential problems; assessing their importance with respect to each other and those currently under investigation; defining the nature of the problem so as to expedite expressing the objectives; outlining the procedures for achieving the objectives; and identifying the resources needed to carry out the proposed research.

Each State station has its own procedures to accomplish the basic requirements for responsible administration of research funds. In addition, they participate in the many other facets of research planning and coordination that take place at the regional and national levels.

The responsiveness of SAES to changing needs is reflected in changes in both the absolute and the relative allocations to various Research Programs. For example, the annual inventory of agricultural research at the state stations shows that in FY 1966, \$2.8 million was expended for research on Environmental Quality. The outlay for research in this area of work had increased to \$7.4 million in FY 1970. A \$15 million increase in Hatch payments to states has been projected for FY 1974 over the Executive Budget for FY 1973. Included in this projection are \$5 million for additional research on Environmental Quality and Resource Conservation, \$5 million for Consumer Needs, including Nutrition, Adequacy of Food and Fiber Supply, and Food Safety, and \$5 million for Rural Development. The urgency of problems in each of the areas are recognized quite generally now. What is important is that they have been included among items specifically

identified in budget requests during the past five or six years. Unfortunately, the appropriations of recent years have not made provisions for financing the new research required to tackle these additional problems.

To be sure there is always a possibility for shifts to research of higher priority within existing funding levels. And such shifts have been made. But as suggested earlier a part of the strength of any research system is the assurance of continuity for soundly conceived, productive projects. The capability to adjust to changing needs is essential, but the "butterfly" approach, under which funds are shifted to respond to each shift in the winds of public fancy, is not the solution.

It is obvious there will not be, in the foreseeable future, sufficient funds to finance all the research that is needed and that scientists would like to do. This mandates development and use of procedures within and among the state stations, the USDA, industry and others to provide for effective planning and coordination of the total research effort. Problems must be identified and objectives defined. In the process many facets will be considered, including: a) the relative importance of the problem, b) the current state of knowledge, c) the gap between knowledge and practice, d) the potential impact of research in solving the problem, e) current effort on the same or similar problems, f) where do competence and facilities now exist to work on the problem, g) where should the research be done, h) what new resources must be made available to do the research, i) what will be the consequences of successful achievement of the objectives - social, economic, environmental, and j) what is the probability of successful accomplishment of the objective and how long will this take?

The will to react positively to each of these is a prerequisite to success. The 53 SAREs have demonstrated this will and most importantly, they have created the mechanisms to deal with them and are actively engaged in using them on a day to day basis. The future will see an increase in subregional, regional, and national planning and coordination efforts. This will be an extension, with improvements, of procedures for which the groundwork has already been laid.

(END OF SARE SECTION)

Resident Education: with inputs from a paper by Henry Hannah of Illinois and others, e.g. Dr. Jerome Pasto.

Cooperative Extension (to be prepared by Dr. Thomas King (FSU)).

Total Chapter to be edited by Mr. Jack MacMillan.

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Senator STEVENSON. The hearings are now adjourned, subject to the call of the Chair.

(Whereupon the hearings were adjourned at 2:15 p.m.)